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ABSTRACT

Supplementing the volume "Fostering the Growing Need to Learn" and its accompanying Bibliography, this descriptive listing of activities is highly selective and emphasizes those projects which are innovative and imaginative. If the activity seemed likely to lead to movement in an important area or had the potentiality for effective use in continuing education after having been used elsewhere, it was chosen. Judgements of "significance" are said to be both subjective and hazardous. The 52 reported activities are divided into the following categories: associations and societies; colleges and universities; activities regarding roles, licensure, accreditations; publications and follow-up activities; use of electronic media; determining need; and miscellaneous. (MS)

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PROJECT CONTINUING EDUCATION FOR HEALTH MANPOWER

Performed by Syracuse University, Syracuse, N. Y.
Pursuant to Contract No. HSM 110-71-147 with
The Regional Medical Programs Service
The Public Health Service
The Department of Health, Education, and Welfare

Project Director: Alexander N. Charters, Professor and Area Chairman, Adult Education, Syracuse University

Principal Investigator: R. J. Blakely, Adjunct Associate Professor, Adult Education, Syracuse University

PART THREE OF FOUR PARTS: A Report of Some Significant Activities in Continuing Education for Health Manpower in the United States

Part One: Fostering the Growing Need to Know

Part Two: A Selected Annotated Bibliography for Continuing Educators of Health Manpower

Part Four: A Critique of Descriptors of Terms in Continuing Education for Health Manpower

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July 1973

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STATEMENT

This publication is one of four parts of the Project Continuing Education for Health Manpower performed by Syracuse University pursuant to Contract No. HSM 110-71-147 with the Public Health Service, Department of Health, Education, and Welfare. The four parts are Fostering the Growing Need to Learn: Designs for the Continuing Education of Health Manpower; A Selective Annotated Bibliography for Continuing Educators of Health Manpower; A Report of Some Significant Activities in Continuing Education for Health Manpower in the United States; and A Critique of Descriptors of Terms in Continuing Education for Health Manpower. We take responsibility for these products, with full acknowledgement of the contributions of many persons to whatever usefulness the results may have to continuing educators in the health manpower field.

The project staff acknowledges, first, the contributions of Dr. Marian E. Leach, Head, Education Science Section, Continuing Education and Training Branch, RMPS. She and the Project Director had many hours of discussion of the needs of the field of continuing education for health manpower before an enterprise to try to meet some of them took shape. During these discussions it was decided that at various stages of the study, the Project staff and the RMPS staff

and advisors they would appoint would meet face-to-face to review not only the substance but also the next steps. In the Foreword to this volume, Dr. Edward Hinman remarks that the contract was unique in that it "incorporated provision for process as well as product." In that process, Dr. Leach participated as Project Officer and she also contributed as a highly professional and widely experienced continuing educator to every product at every stage.

In her Preface Dr. Leach acknowledges the contributions of the Ad Hoc Group that advised the RMPS on the monographs that make up Fostering the Growing Need to Learn. The Project staff acknowledges its grateful indebtedness also to the persons who advised Syracuse University. At first we called the group an "advisory panel." There were three plenary sessions. But as the Project developed the help we sought and received became more flexible. There were many informal meetings with individual members and with others who were not at first formally on the "panel."

We acknowledge the special contributions to the entire project of the following persons:

Pauline Atherton, Professor, School of Library Science, Syracuse University

Robert D. Bergeron, Director of Education, The Connecticut Hospital Association

Cyril O. Houle, Professor, Adult Education, University of Chicago

Ernest McMahon, Dean Emeritus, University Extension, Rutgers University

Rolf Monge, Associate Professor, Psychology, Syracuse University

Margaret Sovie, Educational Director, Upstate Medical Center, State University of New York

Coolie Verner, Professor and Department Chairman, Adult Education, University of British Columbia.

At various times the staff and panel were assisted by the following persons:

Harlan Copeland, Associate Professor, Adult Education, Syracuse University

Doris Chertow, Editor of Publications in Continuing Education, Syracuse University

Stanley Grabowski, Director, ERIC Clearinghouse on Adult Education

Betty Jane Vaughn, Director, Library of Continuing Education, Syracuse University.

Alexander N. Charters,
Project Director,
Professor, School of Education

R. J. Blakely,
Principal Investigator,
Associate Professor (Adj.),
School of Education

INTRODUCTION

The purpose of the Project was to make a critical study of continuing education activities in the field of health manpower in the United States in order (1) to describe a scientific basis and a conceptual framework for continuing education efforts, and (2) to document continuing education of health manpower in a systematic way that would help decision-makers avoid traditional pitfalls, encourage sound innovations, and replicate and advance successful efforts.

The Project was to result in a set of five instruments: (1) a model, or models, applicable to a wide range of practitioners representing various disciplines and responsibilities in the provision and delivery of health care; (2) a series of monographs commissioned from outstanding authorities that together would cover all key aspects of continuing education of health manpower; (3) an annotated bibliography for continuing educators of health manpower; (4) a report of some significant activities in continuing education of health manpower throughout the country; and (5) a thesaurus of descriptors of terms (a controlled vocabulary) for the storage and retrieval of the literature of continuing education of health manpower. These five instruments were conceived as a set--all of which would serve to generate the understanding necessary for a rational, articulated,

programmed development of continuing education of health manpower.

(The five instruments became four, when the Model was combined with the series of monographs.)

The methods of the Project were (1) to search the literature of continuing education generally and continuing education of health manpower, specifically, especially by the Regional Medical Programs, using such resources as the National Library of Medicine (particularly its MEDLARS), the Educational Resources Information Centers (particularly the ERIC Clearinghouse on Adult Education), the Syracuse University Library of Continuing Education, and the Library of the Upstate Medical Center of the State University of New York; and (2) to consult with knowledgeable individuals in various institutions, disciplines and practices, by engaging in dialogues, making visits to sites of activities and attending meetings.

Before turning attention to the present Report, an account of each of the five instruments of the Project is in order.

What was referred to as "a model" is included as the first chapter in a volume of ten chapters, the other nine of which are what was referred to as "a series of monographs," under the title Fostering the Growing Need to Learn: Designs for the Continuing Education of Health Manpower.

A Selective Annotated Bibliography for Continuing Educators of Health Manpower in the United States is a companion volume to the one above.

A Critique of Descriptors of Terms in Continuing Education for Health Manpower has been submitted to the Regional Medical Programs Service.

The present document, A Report of Some Significant Activities in Continuing Education for Health Manpower in the United States, has been submitted to the Regional Medical Programs Service.

* * *

It is in the nature of reports of activities that they are rapidly out of date. The rate of obsolescence of reports was particularly rapid during 1972 and 1973, when Federal policies in the entire field of health care and health-care delivery were in a state of even greater than usual flux and uncertainty. Therefore, the words "some" and "significant" in the title A Report of Some Significant Activities in the Field of Continuing Education for Health Manpower in the United States deserve sharp attention.

"Some" means highly selective. A collection of reports many times the size of the present one would still be far from complete. The sampling in this Report is supplemented by both the volume Fostering the Growing Need to Learn and the companion Bibliography. For example, the present Report does not mention the Problem-Oriented Patient Record system, devised by Lawrence L. Weed--a method given great weight in both the volume of monographs and the bibliography.

The word "significant" is given much latitude. One touchstone for significance was whether the activity is

innovative and imaginative. For example, the impressive array of activities of the American Society of Clinical Pathologists (No. 9), and the pioneering work of the California Medical Association (No. 10). Another touchstone of significance was whether the activity seemed likely to lead to movement in an important area; examples are the consequences flowing from the publication of Abstract for Action (No. 26) and the SASHEP Report (No. 31). Still another touchstone was the potentialities of long-established activities to be put to more effective use in continuing education of health manpower; for example, the use of the data of PAS-MAP for the determination of educational need and the setting of standards (No. 52).

In all cases, judgments of "significance" are both subjective and hazardous, of course. The Project staff will be content if this collection of items calls the attention of the reader to "some significant activities" with which he is not familiar. As an aid not only to more information but also to more recent information, in most cases names and addresses of persons to contact are included.

The large body of information from which the items were selected came from many sources by many methods--interviews, correspondence (more than 40 national societies and associations responded to enquiries), on-site visits, conventions and conferences, reports, journals and newsletters. Some apparently rich sources proved unusable; for example, since during 1970 the Regional Medical Programs shifted from

project support to program support, which meant that the accounts of continuing education activities in the central files of the Grants Review Branch, RMPS, were inextricably mixed with accounts of operational programs. On the other hand, some sources were invariably rewarding. Particular indebtedness is acknowledged to the American Medical Association's two monthly publications, Continuing Medical Education Newsletter and Allied Medical Education Newsletter.

Alexander N. Charters,
Project Director

R. J. Blakely,
Principal Investigator

A REPORT OF SOME SIGNIFICANT ACTIVITIES
IN CONTINUING EDUCATION FOR HEALTH MANPOWER
IN THE UNITED STATES

Table of Contents

A. Associations and Societies--No. 1 Through No. 15

1. American College of Cardiology Core Curriculum Concept
2. American Dental Association Pilot Project
3. American Hospital Association--American Society for Hospital Education and Training
4. American Hospital Association--Hospital Research and Education Trust
5. American Medical Association--Roundup
6. American Medical Association--Self-Assessment Programs
7. American Osteopathic Association
8. Association of Physician's Assistant Programs
9. American Society of Clinical Pathologists
10. California Medical Association Accreditation and Certification Programs
11. Missouri Society of Internal Medicine Peer Review
12. National Tuberculosis and Respiratory Disease Association Research and Development Projects
13. Pharmacy
14. Postgraduate Medical Institute in Continuing Medical Education
15. Oregon Medical Association Mandatory Program

B. Colleges and Universities--No. 15 Through No. 25

16. American Association of Community and Junior Colleges Study
17. Consumer Health Education Projects--Maryland, Missouri, Virginia and Wisconsin
18. Johns Hopkins Health Services School
19. Meharry Medical College
20. New England Regional Resource Center
21. "Open Medical School"--University of Missouri-Kansas City
22. Southern Medical School Consortium Self-Instructional Materials Project
23. University of British Columbia Program to Prepare Continuing Education Specialists in the Health Sciences
24. University of Vermont Community Hospitals Information Centers
25. University of Wisconsin-Extension Health Sciences Unit

C. Activities Regarding Roles, Licensure, Accreditation, etc.--No. 26 Through No. 31

26. "Abstract for Action" and Follow-up
27. California Council on Continued Education for Health Occupations
28. Illinois Hospital Credentialing Demonstration Project
29. Illinois Report on Licensure Study
30. Renewal of Professional License or Association Membership Based on Continuing Education--Roundup
31. Study of Accreditation in Selected Health Educational Programs (SASHEP) and Follow-up

D. Publications and Follow-up Activities--No. 32 Through No. 39

32. Center for Research in the Utilization of Scientific Knowledge (CRUSK) Study of Michigan Physicians
33. Diffusion and Communication of Innovations
34. Equivalency and Proficiency Testing
35. Journal of Continuing Education in Nursing
36. Patient Care
37. Physician's Digest for Continuing Psychiatric Education Programs
38. Psychiatric Education and the Primary Physician
39. Quality Assurance of Medical Care

E. Use of Electronic Media--No. 40 Through No. 45

40. Alabama MIST Program
41. Association for Hospital Medical Education (AHME)/ McGraw Hill Agreement
42. California Medical Media Network
43. National Library of Medicine--Roundup
44. National "MediCall"
45. World Health Organization (WHO) Technology Program

F. Determining Need--No. 46 Through No. 48

46. "Bicycle" Approach
47. Individual Physician Profile Program for Continuing Medical Education (IPP)
48. Systems Approach in Job Analysis by the Navy

G. Miscellaneous--No. 49 Through No. 52

49. Connecticut Institute for Health Manpower Resources
50. "Continuing Education Unit" (The CEU)
51. Medical Malpractice
52. Professional Activity Study and Medical Audit Program (PAS-MAP)

A. ASSOCIATIONS AND SOCIETIES--No. 1 Through No. 15

/. AMERICAN COLLEGE OF CARDIOLOGY CORE CURRICULUM CONCEPT

The National Program Committee for Continuing Medical Education is presently (February 1973) most interested in its new Core Curriculum concept. Core Curriculum is defined as that body of information which is considered essential for the development of a specific level of competence in the medical sciences. The application of the term will be applied to programs involving Physiology of the Heart, Pathology, Radiology, Pharmacology, Electrocardiography, Vectorcardiography and Auscultation. The College's implementation of the Core Curriculum concept is in the beginning stages with two Physiology programs having been presented and other core-type programs presently scheduled. It is hoped that all physicians having particular interest in cardiovascular diseases will participate in each of the above listed core programs.

For more information, write William D. Nelligan, Executive Director, American College of Cardiology, 9050 Rockville Pike, Bethesda, Md. 20014.

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2. AMERICAN DENTAL ASSOCIATION PILOT PROJECT

The ADA, financed by a grant from the American Dental Association Health Foundation, has begun a pilot study to project feasibility and costs of a nationwide ADA Continuing Education Registry and to identify tne alternatives for the long-term financing of such a program. The question to be answered is whether a centralized recording mechanism or decentralized state recording mechanisms would be better. The ADA sends to dentists in Minnesota and Kentucky an explanatory brochure of instructions and information cards.

The ADA is a vertical association. Dentists typically belong to local, state and national associations. The position of the ADA is in favor of voluntary compliance with the first item in the "Principles of Ethics"--"The right of a dentist to professional status rests in the knowledge, skill and experience with which he serves his patients and society. Every dentist has the obligation of keeping his knowledge and skill freshened by continuing education through all of his professional life."

As of October 1972 the ADA reported that six states required continuing education as conditions for relicensure: Kansas, Kentucky, Minnesota, North Dakota, Pennsylvania and South Dakota. Six state dental societies had continuing education requirements for maintaining membership--Arizona, Colorado, Florida, Louisiana, Nevada and Washington. And six state dental associations had implemented voluntary programs--Alabama, Georgia, Mississippi, Ohio, Virginia and Wisconsin. Fifteen other states had various requirements--either for relicensure or for membership maintenance--at various stages (study, passed but not effective or submitted).

For more information, write ADA Continuing Education Registry, 211 East Chicago Ave., Chicago, Ill. 60611.

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3. AMERICAN SOCIETY FOR HOSPITAL EDUCATION AND TRAINING

A new affiliate of the American Hospital Association began to accept memberships in 1971. The American Society for Hospital Education and Training is a professional society of persons who are responsible for the training and continuing education of today's work force in the health-care field. It encourages its members to design and conduct continuing education and training programs in all types of health-care institutions, allied associations, government agencies and educational institutions. It states as some of its goals: "Improving the quality of the education and training of health-care personnel by promoting the concept of the need for continuing education among all health-care personnel; formulating programs of information and evaluation of education and training resources; and participating actively and recommending action on national issues related to manpower and education of health-care personnel." Membership qualifications state that an individual may become a member if: "You are regularly employed by an organization whose purpose is the delivery of health care and your primary responsibility relates to the training and continuing education of health-care personnel; You are primarily engaged as an employee in the training and continuing education of health-care personnel in organizations funded by legislative mandates or health-related educational trusts; You are a faculty member in an educational institution and your primary duties are in the training or continuing education of health-care personnel." Annual membership dues are $22.50. The address of ASHET is 840 No. Lake Shore Dr., Chicago, Ill. 60611.

4. THE HOSPITAL RESEARCH AND EDUCATION TRUST

The HRET, an affiliate of the American Hospital Association, in mid-1972 received a grant of $926,940 from the W. K. Kellogg Foundation to carry on its activities, which were conducted under previous grants from the Kellogg Foundation totaling $1,933,783 and concluding January 31, 1972. Of the new grant $383,940 is to be used in operations, and $543,000 specifically for the support of 22 demonstration projects in hospitals, groups of hospitals, or combinations of hospitals and educational institutions or other agencies active in the training of hospital personnel. For further information write H. K. Gatzke, Director, Center for Educational Innovation, Hospital Research and Educational Trust, 840 North Lake Shore Drive, Chicago, Ill. 60611.

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5. THE AMERICAN MEDICAL ASSOCIATION

A convenient overview of the wide-ranging and diversified activities of the AMA is in the annual report to the House of Delegates by the Executive Vice President. The latest and most comprehensive one made by Ernest B. Howard, M.D., was published in JAMA Vol. 221 No. 5, July 31, 1972. Two sections of that report are below:

"Medical Education: The Council on Medical Education, its Committees, and staff are an integral part of America's medical educational effort. Without the daily application of these enormous resources, the production of new physicians and their subsequent graduate and continuing education would experience a sharp setback. No aspect of the education and credentialling of physicians is untouched by the diverse activities of AMA's medical education arm.

"Among its noteworthy recent contributions are: (1) 41 surveys in the last year of existing, new and developing schools; (2) the 'Fifth Pathway Policy,' which provides supervised clinical training for U.S. students in foreign medical schools and subsequent entry into the midstream of U.S. medicine; (3) the annual education and licensure issues of JAMA, the authoritative references in these two important areas; (4) testimony on behalf of AMA for increased federal appropriations to support the growing medical educational establishment, and, coincidentally, a new awareness in academia of AMA's influence in stimulating legislative actions in their interests; (5) 80 surveys in the last 12 months for accreditation of continuing medical education programs; (6) the encouragement of parallel continuing education programs established in cooperation with AMA by more than 25 state medical associations; (7) the promotion of the California Medical Association's splendid accreditation program for continuing education in community hospitals as a prototype for other state societies; and (8) the first national Self-Assessment Resource Center to help guide and assist specialty societies with 'in-depth' self-assessment procedures.

"Education of Allied Health Professions and Services: Nineteen medical specialty and allied health associations cooperated with AMA in setting standards and approving educational programs for 18 allied health occupations. Noteworthy during the last year are the establishment of the Subcommittee on Proficiency and Equivalency Examinations to develop guidelines for such examinations, and surveys of nine programs for the training of assistants to primary-care physicians."

* * *

Reference is made above to the annual education issue of JAMA. Annually a supplement, beginning in August, is devoted to "Continuing Education Courses for Physicians." The 1972 supplement was dated August 14. The 18th such annual listing, it includes more than 2,000 courses of continuing education for physicians in the United States offered by 578 institutions and organizations for the period from September 1, 1972 through August 31, 1973.

The introductory pages have a section on "Relation of the Course List to the AMA Physician's Recognition Award":

"Based on the previous three years' experience, new and revised criteria are being introduced with the 1972 award. The new criteria greatly broadens the kinds of continuing medical education activities that are creditable toward the award. They also recognize and give credit for many of the things that most physicians do to keep up to date. ...

"The course listing, in its relation to the accreditation program, is supportive for the award. The award needs the base of reference for high-quality continuing medical education courses that the list and other continuing medical education activities provide. The importance of the accreditation program and the course listing can be appreciated by the outline of the criteria for the 1972 award.

"The application form for the 1972 award lists six categories of continuing medical education activities which are creditable over the three-year qualifying period, July 1, 1969-June 30, 1972. Credit in all categories is on an hour-four-hour basis, except in category 4."

The categories are as follows:

Category 1--CME activities with accredited sponsorship--no credit-hour limit.

Category 2--CME activities with nonaccredited sponsorship--45 hours.

Category 3--Medical teaching--45 hours.

Category 4--Books, papers, publications, presentations and exhibits--40 hours.

Category 5--Nonsupervised individual CME activities--45 hours.

Category 6--Other meritorious learning experiences--45 hours.

A total of 150 credit hours is needed to qualify for the 1972 award. At least 60 credit hours must be in category 1.

* * *

C. H. William Ruhe, M.D., is Director of the AMA Division of Medical Education, and he is also Director of the Department of Continuing Medical Education. Ralph C. Kuhli, M.P.H., is Director of the Department of Allied Medical Professions and Services.

The Division publishes two monthly newsletters: Continuing Medical Education Newsletter, edited by Lynn Thomas, and Allied Medical Education Newsletter, edited by Miss Susan Petrillo.

For all information about continuing medical education and continuing education in allied health fields, or to be put on the mailing list for either or both newsletters, write C. H. William Ruhe, M.D., Director, Division of Medical Education, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

6. SELF-ASSESSMENT PROGRAMS

The introduction to the Directory of Self-Assessment Programs for Physicians published by the American Medical Association in late 1971 says: "Self-assessment is a method of continuing medical education that provides a systematic inventory made by you of your own acquaintance with, and access to, currently valid biomedical knowledge and procedures. The concept of self-assessment is learner-oriented rather than teacher-oriented; it uses evaluation as a positive educational experience for the learner. As a method of continuing education, self-assessment programs begin with diagnosis of need (self-testing) and then moves to therapy (instruction). These programs, which are being developed and used by several major medical specialty societies, enable you to pinpoint your own educational needs, and they indicate to the specialty societies areas which require emphasis in their programs of continuing education for physicians."

The booklet then gives essential information on self-assessment programs sponsored by the American Academy of Dermatology, American Academy of Neurology, American Academy of Ophthalmology and Otolaryngology, American Academy of Orthopaedic Surgeons, American Academy of Pediatrics, American Association of Neurological Surgeons, American College of Obstetricians and Gynecologists, American College of Physicians, American College of Radiology, American College of Surgeons, American Psychiatric Association, American Society of Anesthesiologists, American Society of Clinical Pathologists, the Philadelphia County Medical Society, and the University of Illinois College of Medicine.

Self-assessment programs have been more highly developed in continuing medical education than in continuing education for other health professions and occupations but they are generally applicable. For the first time this method of the determining educational need and of prescribing educational experiences to meet need is coming under careful analysis.

In February 1972 the Board of Trustees of the American Medical Association approved the establishment of a self-assessment resource center to provide means for evaluating self-assessment programs. The center would be a joint effort of the AMA's Division of Medical Education and the Center for Educational Development of the University of Illinois College of Medicine. Approval was contingent upon receiving a grant from the National Center for Health Services Research and Development in HSMHA. On June 30, 1972, the AMA received a grant for the first year of an approved two-year project. The University of Illinois Center for Educational Development

is undertaking the project through a subcontract with the AMA.

Insight into some of the directions the project will take was provided by an address given to the Third National Conference of State Medical Association Representatives on Continuing Medical Education October 24-26, 1972, by M. Lory Campbell, M.D. Campbell, now in private practice in Mobile, Alabama, was formerly Assistant Director and Chief of the Continuing Education Section at the University of Illinois Medical Center's Center for Educational Development.

Campbell's points were: The main thrust of most continuing medical education, including self-assessment programs, is toward the acquisition of new knowledge. A direct relationship between knowledge and performance does not necessarily exist.

Campbell then described a self-assessment demonstration at the 1971 Meeting of the Illinois State Medical Society in which 117 physicians took tests directed toward assessing how people use the knowledge they have. The experiences were:

1. Exercises in listening to heart sounds and other information to determine whether significant evidence of heart disease was present.

2. Written simulations involving patient-management problems.

3. Computer simulations to focus on diagnostic skills.

4. Telephone simulations of emergency cases and physician handling of the situations.

5. Simulated physical examinations using three-dimensional models on which examinations were performed.

After each experience the participants retained copies of their own responses so they could determine their own educational needs.

Two things should be apparent from a description of the self-assessment demonstrations, Campbell said:

1. Subject matter can be varied to meet the needs of a particular physician group.

2. The methods that were used assess ability to use information rather than the possession of the information.

The process model presented, he said, is worthy of further testing.

For information about the AMA Self-Assessment Resource Center, write Leo L. Leveridge, M.D., Department of Continuing Medical Education, 535 N. Dearborn St., Chicago, Ill. 60610.

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7. CONTINUING EDUCATION FOR DOCTORS OF OSTEOPATHY

A growing concern for continuing medical education among doctors of osteopathy was noted in the 1972 Report of the American Osteopathic Association (AOA), printed in the October 1972 issue of D.O.

The House of Delegates of the AOA in July advocated 150 hours of continuing medical education over a three-year period for continuing membership in the Association. At least 60 of these 150 hours are to be in organized osteopathic educational programs and the remaining may be obtained in informal osteopathic or allopathic programs.

The House also resolved in favor of including a continuing education requirement in state licensing laws.

The House reported that 13 states already require continuing medical education for osteopathic relicensure.

Four divisional societies out of 14 responding to a survey made by the AOA Office of Education reported continuing medical education requirements for maintaing membership.

Another survey revealed that 18 of 54 accredited osteopathic hospitals responding required continuing medical education.

In February 1972 the AOA created a Coordinating Committee on Continuing Medical Education.

For further details, write the Office of Education, American Osteopathic Association, 212 E. Ohio, Chicago, Ill. 60610.

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8. ASSOCIATION OF PHYSICIAN'S ASSISTANT PROGRAMS

The directors of training programs for physician assistants have formed an organization to work out the problems that are developing in this rapidly growing controversial new profession. The heads of 15 such programs met in Atlanta in October 1972 to set up the Association of Physician Assistant Programs. At that time they received a report based on a study of the programs and employment trends conducted by Dr. Alfred M. Sadler, a physician, Blair L. Sadler, a lawyer, and Anna A. Bliss, a nurse, all members of the Yale University School of Medicine faculty. (The book was later published as The Physician's Assistant --Today and Tomorrow," New Haven: Trauma Program, Department of Surgery, Yale University, 1972)

Dr. Alfred M. Sadler writes, "Continuing education will be a major interest of the Association of Physician's Assistant Programs, as it is of the American Academy of Physician's Associates." For more information, write Mr. Paul Toth, Physician's Associate Program, Duke University, Durham, North Carolina.

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9. ROLE OF THE AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS IN CONTINUING EDUCATION

The educational activities of the American Society of Clinical Pathologists are probably the most comprehensive of any speciality society in the world. All of the ASCP educational programs are available not only to the 18,000 members of the Society, but also to all qualified laboratory personnel, physicians, clinical scientists and allied health personnel.

The educational role of the Society underwent explosive expansion with the formation of the ASCP Commission on Continuing Education in 1956. Then the membership, about 2,500, approved the concept of a formal program of continuing education. The program was officially launched the next January with the appointment of an ad hoc committee and the holding of an organizational conference. A Commissioner of Continuing Education was appointed to collaborate with the ASCP Scientific Councils in the planning and implementation of seminars and other educational programs, and to prepare, publish and disseminate educational materials to acquaint medical laboratory personnel with scientific advances in the field of laboratory medicine.

The present Commission of Continuing Education programs and services represent the voluntary contributions of nine CCE Scientific Councils: Anatomic Pathology, Clinical Chemistry, Cytopathology, Forensic Pathology, Hematology, Immunohematology, Microbiology, Nuclear Medicine and Special Topics, each composed of nine elected members, who, with the Commissioner, make up the Commission on Continuing Education. The duties of the Commission are the development of policy, coordination of Council Activities, and the implementation of educational projects. The Commission's activities are divided into three categories: Educational Programs, Educational Materials and Administrative Affairs, each under the direction of a Deputy Commissioner. In addition, about 20 ASCP Fellows and Affiliate Members serve as directors of specific projects. Annually more than 350 other members serve voluntarily in the production of educational programs and materials. The Commission is supported by an administrative staff composed of a full-time Commissioner of Continuing Education, a Director and Deputy Director of Continuing Education Services, a team of MT (ASCP) Technical Project Managers, and other senior administrative personnel and specialists. Thus, approximately 500 volunteer and staff members are required to maintain the day-to-day activities and special projects of the Commission.

The ASCP Educational Center

In 1964 the Society approved the launching of a campaign for the establishment of a national center for continuing education in Chicago. In June 1971 the ASCP Educational Center was dedicated. It is a unique, privately financed facility dedicated to the development and conduct of a comprehensive program of continuing education service for all medical laboratory personnel. It provides year-round workshop opportunities to develop, utilize and distribute the latest educational tools of communication, and also offices for the ASCP staff personnel. It has an auditorium, specially constructed teaching and support laboratories, a library and resource center for individual study, a full-scale printing plant, artist's studio and a television studio. In addition it houses the more than 100 full-time ASCP staff members.

All the educational programs of the ASCP Commission on Continuing Education are accredited by the AMA Council on Medical Education. The Society's current educational activities can be classified in six categories--National and Regional Workshop Programs, Home Study Programs, Audiovisual Materials, Publications, Special Projects, and Research and Development Projects.

National and Regional Workshop Programs

Ordinarily more than 100 CCE Council-sponsored workshops and applied seminars are offered at the Society's spring and fall meetings. The development of the comprehensive Council-sponsored national meeting workshops is a year-round activity of the ASCP workshop team. The rapid growth and scope of the workshop operations may be appreciated by comparing the 40 workshops and 875 paid registrants in 1963 with the 187 workshops and 8,475 paid registrants of 1971.

Annual Anatomic Pathology Slide Seminar

The traditional Slide Seminar Day is a major attraction of the fall meeting. Several months before the meeting, registrants receive about 25 microscopic slides for review and submission of diagnoses. During the seminar each case is discussed by a panel of experts and the tabulation of the registrants' diagnoses is disclosed along with the correct diagnoses. The Seminar Proceedings, a verbatim transcript, are distributed to the registrants a few months following the presentation. The Annual Anatomic Pathology Slide Seminars have a capacity of almost 2,000 persons, to whom approximately 50,000 slides are distributed for study and as a library resource.

ASCP Educational Center Programs

In 1971 the Society inaugurated a year-round series of four-day or five-day workshops, conducted in the new ASCP Educational Center. These workshops differ from the spring and fall meeting workshops in that the facilities permit presentation of much more sophisticated workshops. Registrants are afforded individual technical assistance in the laboratory with ample opportunity for personal, active participation in a scientific environment similar to that of a medical school

Tutorial Laboratory Programs

The Tutorial Laboratory Program was established early in CCE's history as a year-round, nationwide supplement to the oversubscribed national meeting workshops. The Tutorials are directed by outstanding authorities in their particular fields using their own laboratory facilities. They combine practical laboratory exercises with didactic presentations and, depending on the topic, vary in length from one to five or more days. The small quotas and locations convenient to the participants' homes contribute to the continuing popularity of this program.

Regional Workshops

These are a recent addition. They are year-round presentations of national-meeting type workshop topics held in conjunction with State Society Medical Meetings. The Regional Workshops are conducted in cooperation with the local faculties, and CCE materials and publications are made available for the programs.

Medical Technology Training Institutes

A Health Services Grant from the Division of Allied Health Manpower of the NIH has recently been awarded the ASCP Commission on Continuing Education for the development of regional Training Institutes for 2,000 medical laboratory instructors. The two-and-one-half-day Institutes are devoted to theory, technics, application and control of selected significant new clinical laboratory procedures in the fields of Clinical Chemistry, Hematology, Immunohematology and Microbiology. The Institutes are presented throughout the country at adult education centers and/or medical schools and hospitals, and are geared toward medical technologist teachers and supervisors who are in a position to instruct other laboratory personnel.

Home Study Programs

The ASCP Check Sample Program is a year-round comprehensive, self-education and self-evaluation subscription program

for pathologists, residents, technologists and most laboratory personnel. Now in its 16th year, this educational program is designed to keep the participants informed about the most recent developments in laboratory procedure. At present about 1,200 laboratories participate in this program. The complete Check Sample Program for 1972 consists of 40 home laboratory exercises, 6 each in the fields of Forensic Pathology, Hematology, Immunohematology, Microbiology, and Special Topics, and 10 in Clinical Chemistry (6 basic and 4 advanced). Each month subscribers have an opportunity to assay, interpret and compare their results and technic performance with the experts in the field. Each Check Sample exercise is made up of two parts. The first is a history and questions, with a specimen for examination or evaluation. The second part is a critique distributed about two weeks later, in which an authority in the field identifies the unknown, lists a range of values where applicable, answers the questions raised in the history, reviews appropriate current methodology and suggests additional reading. At the end of the program year, each participant receives an index of the critiques. The accumulated critiques and slides represent a teaching library superior to that available in the usual laboratory text. The Check Sample materials are entirely educational in nature; they are not designed as surveys or tests of proficiency.

The ASCP Professional Self-Assessment Program provides medical laboratory personnel with the opportunity for voluntary evaluation of their knowledge in selected areas, and, by means of computer-scaled score reporting, to compare their achievement with that of their peers. The emphasis of the Self-Assessment Program is on education rather than testing. The program guarantees anonymity to the participant. The Commission on Continuing Education is now concerned with the completion of details for supplying state and local societies, hospital groups, and individuals with the materials and expertise for on-site self-assessment.

The ASCP Technical Improvement Service is a publication dealing with practical education to assist the clinical laboratory in achieving high standards of day-to-day performance. This program has about 2,000 subscribers. Each of the four volumes provided in the TIS subscription program offers consideration of selected current methodology and technics, troubleshooting, sources of error and practical quality control in Clinical Chemistry, Hematology, Immunohematology and Microbiology. Each bound volume of TIS is accompanied by a duplicate set of all methodologies for insertion in laboratory procedure manuals.

Audiovisual Programs

The ASCP Atlas Series: Each publication in this series consists of the personal extensive collection of an expert

in his field. Each Atlas consists of a comprehensive selection of 35mm color transparencies which are identified by title and number and stored in vinyl carriers. The slides are accompanied by the pertinent comments of the author. In some instances the presentation is by case method; in others, a narrative discussion.

Anatomic Pathology Seminar Atlases: Since 1967 the teaching value of the traditional ASCP Annual Slide Seminar has been greatly enhanced by the publication of a companion Atlas. The Atlas provides a revised and edited version of the entire Seminar Proceedings, together with duplicates of the actual photomicrographs used by the panelists in their original presentations.

Audiovisual Seminars: The ASCP Audiovisual Seminars deal with more than 30 scientific subjects. The AV Seminars are authored and narrated by experts. Each seminar consists of a set of 35mm color transparencies, a synchronized 5" reel or cassette tape and, in most instances, a notebook with the complete printed text. The program's flexible components lend themselves to classroom or individual student use and have proven to be especially valuable as a visual supplement to the lecturer's personal commentary.

Publications

The Summary Report, a monthly subscription publication, is a forum for the exchange of practical information and opinions concerning the medical laboratory and its problems. The Summary Report is designed to provide an immediate evaluation of new technics and instruments, a "clearinghouse" for the exchange of information and experiences, and a medium for questions and answers. It has about 2,000 subscribers, through whom, it is estimated, between 8,000 and 10,000 laboratories are reached.

The Laboratory Manual program provides a library with a wide range of clinical pathology subjects. The more than 65 manuals provide an introduction, detailed explanation and review of current concepts and technics. Whenever applicable, visuals are included. With some exceptions, the publications originate as manuals for workshops of ASCP national meeting programs.

Anatomic Pathology Seminar Proceedings: These are a verbatim transcript of the Annual Slide Seminar. The development of an Atomic Pathology Slide Seminar Atlas for the more recent seminars makes it possible to bring complete documentation of these programs to reference libraries and teaching institutions.

Clinical Pathology Seminar Proceedings: This series is ordinarily concerned with reproduction of the content of the CCE Council-sponsored Scientific Sessions that are now included as a feature of both the spring and fall national meetings. The Seminar Proceedings are published in paperback, pocket-sized editions, and cover the complete discussion of up-to-date technics and opinions by the panel of experts.

Special Projects

At the spring and fall national meetings the CCE exhibits samples of current programs, publications and teaching aids throughout the meeting week. A year-round CCE Exhibit is also maintained at the ASCP Educational Center for the convenience of workshop participants and other visitors.

In the processing of educational materials, the CCE has developed convenient packaging and storage ideas which members have found useful in their own libraries and laboratories, including two types of 3-hole punched slide holders; an attractive, durable, standard-sized 3-ring binder; and specially designed 3-ring punched vinyl tape cassette holders for shelf storage of tape cassettes.

The CCE has participated in the production of a number of motion picture films, most recent of which is the award-winning "Continuous Flow Analysis"--a 16 mm production available for purchase from the Society or for loan from the ASCP Film Library.

Research and Development Projects

A variety of new educational materials is in various stages of planning or production, including overhead projection materials, home study cases, question and answer programs, and Laboratory Learning Aids. This last is a self-instructional "semi-programmed" series of audiovisual aids and printed materials, designed to teach elementary hematology and other subjects to beginners.

Future Educational Activities

Decentralization and regionalization of activities seem inevitable, and so does expansion of home study programs. It is anticipated that many of the Educational Center workshops and other programs will be suitable for videorecording. The introduction of home television converters for playing videorecords and cable television make this project important and exciting. In addition to home use, videorecording also provides the potential to distribute "packaged" workshops for use by local groups and other societies.

The Society is faced with the potential for another period of rapid growth of continuing education activities. With continued support of increased numbers of volunteers, and with the potential of Federal and private financing, it is anticipated that the Society can continue to fulfill its responsibilities to maintain and expand its educational programs for all medical laboratory personnel.

For more information, write George F. Stevenson, M.D., Executive Vice President, American Society of Clinical Pathologists, 2100 West Harrison Street, Chicago, Ill. 60612.

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10. CALIFORNIA MEDICAL ASSOCIATION'S ACCREDITATION

CERTIFICATION OF CONTINUING MEDICAL EDUCATION

Medicine in California speaks with a single effective voice through the Scientific Board of California Medical Association, which, since its establishment in 1962, has coordinated and strengthened the scientific and educational activities of CMA. The Scientific Board functions through 11 standing committees and 20 advisory panels. Two of the standing committees are Continuing Medical Education and Accreditation of Continuing Medical Education. In the past few years these committees have introduced bold, new approaches to continuing medical education.

In 1967 the CMA sponsored a planning and goals conference in continuing medical education. One of the major recommendations was that the community hospital be established as the primary locus for CMA for practicing physicians.

Another planning and goals conference was held in 1969, which recommended the establishment of a certification program in continuing medical education. This was implemented by the CMA as a voluntary program in 1970. One of the major features of this program is the allowance of Group A credit in the Physician Recognition program for participation in an accredited community hospital continuing medical education program. Later in 1970 CMA developed the "Guiding Principles for Continuing Medical Education in Community Hospitals," which serves as the basis for the accreditation program.

In 1971 the Accreditation Committee of CMA began its program of site visits in hospitals that had applied for accreditation of their continuing medical education programs. As of late 1972 over 100 applications had been received out of the 600 hospitals in California, and 52 had been visited to review their continuing medical education. Of these 11 have been approved for full three-year accreditation, 10 were advised to postpone application until their programs were in conformity with the "Guiding Principles," and the rest were given provisional one-year accreditation.

The accreditation program is based upon:

1. A commitment by the hospital governing board and medical staff to an effective program of continuing medical education.

2. An assessment of educational needs as demonstrated by quality of patient-care evaluation.

3. Educational programs based upon demonstrated needs and relevant to the work done in the hospital.

4. Evaluation of the effect of the educational program in terms of its impact upon the quality of patient care.

This concept has required a thorough re-evaluation of committee work in many hospitals and has required the development of training programs for medical staffs in the techniques of educational need assessment. CMA has sponsored a series of workshops conducted by Clement Brown, M.D., and his associates in modern medical audit techniques.

It has become apparent that to reach the 600 hospitals in California it will be necessary to develop a California faculty to conduct the training workshops.

Because less than 10 percent of patient care is provided within hospitals, the CMA has approved a pilot project in the evaluation of patient care in office practice based on the same concepts used in the development of the hospital accreditation program.

A companion program in the area of continuing medical education is the certification program for individual physicians. Now in its fourth year, it is the largest voluntary program being carried out by any state medical society. Through it the physician reports annually on his own participation in a range of acceptable educational activities, including formal courses, grand rounds, research, teaching, publication, departmental meetings, etc. Certification is awarded on the basis of having participated in a minimum of 200 hours of approved educational activities in a three-year period. Attainment of a CMA certificate in continuing medical education automatically qualifies the recipient for the AMA Recognition Award.

For information or materials, write Committee on Accreditation of Continuing Medical Education, California Medical Association, 693 Sutter St., San Francisco, Cal. 94102.

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11. MISSOURI SOCIETY OF INTERNAL MEDICINE PEER REVIEW

The MSIM offers its members a review of office clinical records. It is voluntary and anonymous both for the physician whose records are reviewed and for the reviewer. The suggestions resulting from the review help physicians keep more effective records and give better patient care.

1. The doctor makes available a copy of a recent patient= record chart, blocking out all identifying names and addresses.

2. The Society forwards the record copy without name or address to a member of the Professional Review and Quality Standards Committee of the Society.

3. The record is reviewed anonymously in the light of 10 quality standards.

4. The critique of records and copies of records are returned to the doctor, with the reviewing doctor and the reviewed doctor both anonymous.

5. After a period of six months, a physician may submit another chart in the same way to assess improvement in his recording of clinical data.

This program is a valuable educational tool by identifying medical education needs as a basis for planning programs to meet them.

For more information, write Daniel L. Dolan, M. D., Missouri Society of Internal Medicien, 3036 Gillham Road, Kansas City, Mo.

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12. NATIONAL TUBERCULOSIS AND RESPIRATORY DISEASE ASSOCIATION

RESEARCH AND DEVELOPMENT PROGRAMS IN MEDICAL

EDUCATION

The NTRDA provides funds for research and development programs for professional education in the field of respiratory diseas. The objective is to stimulate the application of new concepts of medical education to the field of respiratory disease. Funds wil be provided to stimulate the development of innovating programs of professional education, programs which utilize experimental approaches and new methodology, and which apply to the respiratory disease field the newly developed hardware, technology and educational principles now being developed in the field of education.

The funds will provide support for pilot projects which have an original approach, but they must also have a definitive, well-outlined purpose, methodology to meet their objective, and a built-in evaluation process to assay the results they achieve. The projects may be directed to any phase of the educational process, undergraduate, graduate, or postgraduate, but must have definite application to the field of respiratory disease. Preference will be given to projects dealing with continuing medical education.

Any institution, organization, or individual associated with a training program in respiratory disease, at any level in the continuum of the educational process, is eligible to apply.

For more information, write the National Tuberculosis and Respiratory Disease Association, 1740 Broadway, New York, N. Y. 10019.

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13. PLANS FOR CONTINUING EDUCATION IN PHARMACY

Continuing education in the field of pharmacy is relatively new and undeveloped. The first formally organized departments for continuing education in pharmacy began in 1949 at Rutgers and at Wisconsin. The first formal program to prepare professionals in the discipline of continuing pharmacy education was announced in 1966. The early graduates of this, and similar programs, have just now begun to assume positions of responsibility. However, three major national organizations have recently taken actions that may have large significance for the future.

The American Council on Pharmaceutical Education, which has previously concerned itself with accrediting education in undergraduate studies, in 1972 adopted Revised Accreditation Standards to take effect July 1, 1974, which read in part:

"Since the development and maintenance of continuing competency in the profession as a public protection is the social responsibility of the profession--the licensing arm of the profession as well as pharmaceutical education--the Council recommends the use of tripartite committees representing the boards of pharmacy, the colleges of pharmacy and the state pharmaceutical associations to assist in establishing guidelines for the development and maintenance of continuing education programs.

"The Council expects the colleges of pharmacy to demonstrate leadership in such programs as well as in the development of innovative programs for the delivery of health-care services. Furthermore, the Council expects the colleges to be aware of trends that are now developing which will broaden both the scope and responsibility for continuing education in pharmacy as suggested in the following statements:

"A. Colleges increasingly will be called upon to relate to continuing pharmacy education new knowledge, technological advances, and changing concepts and approaches to health professions education. This brings new emphases on interdisciplinary continuing education; the development of interdisciplinary faculties; evaluation of innovative programs; the application of new technology to both self-directed study and group programs, and the need for upgrading the general level of pharmacy practice.

"B. The development of the informed patient nationally will come through a broad approach to consumer education.

Continuing education in pharmacy, therefore, should be directed not only to fulfilling the needs of the practitioner, but those of the consumer as well. A new era in which the 'informed patient' will be one of the key factors in the development of a comprehensive health-care system will place unique opportunities and responsibilities on pharmacy education.

"C. The development of unstructured programs of learning is occurring in higher education. What impact this will have on pharmacy education is not yet known but, in one way or another, it will influence the direction of programs for continuing education."

* * *

Also in 1972 the American Association of Colleges of Pharmacy Task Force on a Clearinghouse for Continuing Education Material made a report that stated: "...the Task Force must give equal consideration to materials produced for all phases of education in order to avoid an artificial division among those phases. Further, the blending of pharmacy and other health sciences will mean that educational materials produced by one member of the health sciences should be available for use by other members. The blending of these materials should serve to strengthen the developing health-care-team concept."

It was the unanimous opinion of the Task Force "...that the combination of national developments leading toward mandatory continuing education along with the maturing health-team concept made it imperative that some action be taken by the AACP to coordinate the acquisition and dispersal of audio-visual and hard-copy educational materials. In addition, consideration was given to the development of standards and what body should establish these standards. In order to be credible, an expert but disinterested body must consider needs and establish standards by which programs to meet these needs may be judged."

* * *

The American Association of Colleges of Pharmacy (AACP), the National Association of Boards of Pharmacy (NABP) and the American Pharmaceutical Association (APhA) in 1970 formed a Special Tripartite Committee on Continuing Education with the charge to "...conduct such studies and to make such recommendations as would be appropriate for the development of programs and the adoption of legislation to make continuing education mandatory for licensure renewal." This Special Tripartite Committee on Continuing Education made a report in 1972 that contained eight recommendations, among them the following three:

That: "The NABP develop a model statute to be used by those states seeking enabling legislation for requiring participation in continuing education programs for relicensure of pharmacists";

That: "The AACP, the APhA and the NABP through their executive officers jointly bring into existence a national accrediting agency for continuing pharmaceutical education programs with appropriate duties and powers";

That: "The AACP, the APhA and the NABP through their executive officers with the direction of their executive boards commission an in-depth study and analysis of continuing pharmaceutical education in this country which would provide a comprehensive report and recommendation for the optimal development and utilization of continuing education programs."

* * *

Finally, a set of guidelines to aid in the rational development of continuing education in pharmacy now exists. This first effort resulted from a two-year study by the Future Planning Committee of the Section of Teachers of Continuing Education of the American Association of Colleges of Pharmacy. They are published in the American Journal of Pharmaceutical Education 36: 1972 p. 36.

* * *

Dean Allen I. White, who chaired the Tripartite Committee, warned against optimism based only upon plans. In Tile and Till 38: 1972 p. 31 he wrote:

"The present enthusiasm for continuing education programs as an instrument to maintain professional competency can be sustained only if they are successful in producing the anticipated effects." He said that the recommendation for an "in-depth study and analysis" made by the Tripartite Committee was "perhaps the most important recommendation" of the committee, and concluded: "If the study is undertaken and completed in time, the future of continuing pharmaceutical education can indeed be bright and the future of pharmacy greatly enhanced."

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14. THE POSTGRADUATE MEDICAL INSTITUTE IN CONTINUING MEDICAL EDUCATION

Established in 1953, PMI is a non-profit educational corporation sponsored by the Massachusetts Medical Society. Its mission is to improve the quality of health care through education. Its activities include:

Planning programs and arranging for speakers for community hospital lectures, grand rounds, seminars and other inter- and intra-hospital education sessions.

Sponsoring review courses in both basic and clinical sciences.

Consulting with community hospitals concerning implementation of continuing medical education programs.

Evaluating the effectiveness of consultation as a stimulus to the development of continuing medical education programs of community hospitals.

Studying the use of consultation in generating hospital education programs pertinent to the unique problems of the poor in the communities served by the hospital.

Preparing clinical medicine, self-assessment teaching examinations for general practitioners.

Providing training and consultation to aid in developing community hospital libraries.

Developing comprehensive health science core libraries (medical, nursing and allied health) for community hospitals.

Field-testing and assisting in implementing the Medical Core Library.

Investigating the formulation of criteria for identifying literature pertinent to selected medical audiences--namely general practitioners, internists, surgeons, pediatricians and obstetrician-gynecologists.

Collaborating with other organizations in developing and implementing continuing education programs.

PMI receives financial support from (1) the Massachusetts Medical Society, (2) the Division of Physician Manpower, Bureau of Health Professions Education and Manpower Training, National Institutes of Health, (3) the Tri-State Regional Medical Program, (4) the New England Regional Medical Library Services at the Francis A. Countway Library of Medicine, (5) tuition fees paid by participating individuals and institutions, and (6) other health or education agencies.

PMI activities involve more than 100 hospitals in Maine, Massachusetts, New Hampshire and Rhode Island.

Drawing on 10 years of experience in developing continuing education at community hospitals, PMI devised an eight-step "Systematic Approach to Developing Education Programs," which is "sequential and comprehensive," published in 1971 by the Massachusetts Medical Society, both separately as Continuing Medical Education in Community Hospitals, by Norman S. Stearns, M.D., Marjorie E. Getchell and Robert A. Gold, and, under the same title, as a supplement to the New England Journal of Medicine Vol. 284 No 20 May 20, 1971.

PMI plays a large role in the development and improvement of hospital libraries through its Core Library Program, which eventuated in an Integrated Health Science Core Library for physicians, nurses and allied health practitioners and a program to train library supervisors, cosponsored by the New England Regional Medical Library Services (NERMLS). More than 100 hospital libraries throughout New England have PMI-NERMLS-trained library supervisors, and annual one-week training institutes for libraries are conducted in the several areas of New England.

In 1972 PMI received a grant from the National Library of Medicine to develop and evaluate a training program for a new type of health manpower--the Health Information Specialist. The goal of the program is (1) to equip hospital librarians with skills to expand the improve library services as an aid to educational activities, and to give direct assistance to hospital educators in the development and implementation of education programs, and (2) to orient hospital educators, including DME's, service chiefs, in-service nursing directors, education committee chairmen, etc., to ways in which they can use the hospital library.

Beyond community hospitals and their libraries, PMI has produced three annual series of Family Practice "Core Content Review Self-Assessment Examinations," which have been taken by thousands of physicians in more than 40 states. One of these is the "Core Content Review" offered by the Connecticut and Ohio Academies of General Practice--designed

to allow an individual physician to evaluate his own knowledge of the Core Content of Family Medicine as described by the American Association of General Practitioners. PMI also conducts one-day teaching symposia for medical organizations as special projects.

The Executive Director of PMI, Norman S. Stearns, M.D., says, "We recognize behavioral change leading to improved patient care as the ultimate demonstration of accomplishment, but we are not dissatisfied with change that demonstrates only a renewed willingness on the part of the physician to help create and to accept educational opportunities. It is the primary goal of PMI to help provide such opportunities."

For more information, write Norman S. Stearns, M.D., Postgraduate Medical Institute, 30 The Fenway, Boston, Massachusetts. 22215.

15. OREGON MEDICAL ASSOCIATION

The OMA is the first professional society in the United States which has suspended members or from which members have resigned because of failure to meet a requirement for continuing education. In an address to the Third National Conference of State Medical Association Representatives on Continuing Education held October 24-26, 1972, Merle Pennington, M. D., Chairman of the Council on Medical Education of the OMA gave an account of the planning and implementation of the association's requirement for continuing medical education.

From 1967 to 1970 the requirements for continuing education were endorsed and established by the OMA House of Delegates. The first reporting deadline was December 31, 1971, at which time 11 members were suspended from the association for failure to meet the requirements and eight others voluntarily resigned. Since then four of the 11 have complied, leaving seven on suspension at the time of the report. Thus the program had resulted in a loss of 15 members. The fact that the association had 176 more members than it had at the time of the institution of the program suggests that the requirement has not been detrimental to recruitment or retention.

Pennington attributes the harmonious change to the Council's efforts to explain the program to the membership and keep it informed, being aware that from the beginning the idea of compulsory continuing education was unpopular. Difficulties in setting standards were resolved when the Council decided that the representative speciality groups in the state should determine the requirements for members in each discipline. Besides being politic, this policy ensured that the peculiar needs of the members in each speciality would be determined by their own bodies.

All members are required to participate in continuing education programs except those in training during years of internship, residency or fellowship. Personal exceptions are considered, butusually substitution of activities is offered rather than exemption. An appeal mechanism is available, which may be an important factor when the requirement is challenged legally, as it probably will be.

Pennington explained the activities to get physicians to file the reports of their educational programs. Reminders were mailed to the members in June and September 1971 as the deadline approached.

Only 60 out of more than 2,000 members had failed to file reports six weeks before the deadline. These were advised that they could submit a satisfactory report; or appear at a hearing to cite reasons why they should be exempt; or waive the right to a hearing, not report and be suspended on December 31. Fifty-three hearings were held, with the physicians present at all but two. Others had written to give personal circumstances that prevented them from filing, most of whom were given a three-month extension, and the remaining were told that they would be suspended if they had failed to report by December 31.

Pennington said that the Council on Medical Education of the OMA is now engaged in developing a program of hospital-based, locally-administered continuing medical education.

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B. COLLEGES AND UNIVERSITIES--No. 16 Through No. 25

16. AACJC STUDY PROJECT IN HEALTH EDUCATION

The American Association of Community and Junior Colleges on April 14, 1973, announced that it had received a $185,000 grant from the Robert Wood Johnson Foundation for a national study and reporting project in health education. The aim will be to gather and disseminate information that will help community and junior colleges in strengthening their roles in professional education for ambulatory and primary-care practice. Among areas to be covered are the need, distribution and functions of physician-support programs, and the identification of the variety of support programs appropriate for community and junior colleges to implement. The study will include also credentialing of personnel and task analysis, and the placement possibilities of military personnel entering civilian employment.

For more information, write the American Association of Community and Junior Colleges, One Dupont Circle, Washington, D. C. 20036.

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17. CONSUMER HEALTH EDUCATION

Gradually health care in the United States is changing from a disease-orientation to one of health maintenance. What is required is a broader health focus, emphasizing preventive, supportive and rehabilitative roles. Health management programs must emphasize personal and family schedules for healthier life styles, preventive health screening, identification of high-risk disease groups with a concomitant need to change unwise life styles, and chronic disease self-management. No system can possibly furnish all of such care to a population of passive individuals. The greatest untapped manpower resource in the United States is the individual consumer. What is needed is an informed and "activated" citizenry that can take its own initiative in personal health care and in the approaching and utilizing of the health-care system. An important and promising avenue for encouraging this kind of active response is through a broad program of consumer health education.

State universities and land grant colleges are unique in their commitment to public educational services. University extension, both cooperative and general, has demonstrated its effectiveness in some areas which contribute to better health--including nutrition, sanitation, home-making and pest control. Extension has not been involved directly in issues of health-care delivery or access to the system because it was deemed that this was the exclusive domain of the formal health-care delivery systems.

However, it has become clear that extension personnel and the extension movement generally have been interested in health for some time. On April 2, 1971, the National Association of State Universities and Land-Grant Colleges was host to a national meeting to explore the involvement of extension in health education. The meeting was underwritten by the Health Services and Mental Health Administration, which announced that it would fund four demonstration projects, and which contracted with the Extension of the University of Wisconsin to prepare a document for the meeting.

The document, titled "Interim Report of Project-1971: Planning Proposal for Consumer Health Education," was transmitted on February 26, 1971, and distributed in advance of the meeting. A second version titled "Final Report of Project-1971: Planning Proposal for Consumer Health Education," was transmitted to HSMA June 30, 1971. The first

version includes a 24-item bibliography "Suggested Reading List for Applications." The second includes an 85-item bibliography, which has a "foreign publications" section with items on Denmark, England, India, France and Sweden, and a World Health Organization section, with citations of 25 items.

At the April 2, 1971 NASULGC-HSMHA meeting there were 76 persons representing 50 institutions and agencies from 30 states who met to discuss the issue. Subsequently 23 extension-sponsored or extension-linked demonstration proposals were submitted to the Health Services Mental Health Administration. Four were funded--one each in Missouri, Virginia, Maryland and Wisconsin. All have similar objectives:

1. Greater concern for personal health;

2. Positive steps to prevent illness occurrence; to prevent progression of minor illnesses; and to prevent dependency upon rehabilitation following catastrophic illness;

3. A better understanding of the changing health-delivery system and how to obtain access to it most effectively and efficiently.

4. How and what one may accomplish by self-help without or prior to calling on the formal health-care delivery system.

Since each of these projects began in March of 1972, results and evaluation are not yet in. Moreover, it seemed at the end of 1972 that HSMA would not refund these projects or extend the experiments at least at the present time.

Nevertheless, the need for public education programs in self-care and the opportunity to conduct them through extension systems, both cooperative and general, seem so obvious that these four projects are worth attention.

The names and addresses of the persons in charge of the four demonstration projects follow.

1. University of Maryland, College Park, Md.
Title: Consumer Health Education Demonstration; Co-Directors--George Lentz, M.D., Director Community Pediatric Center, School of Medicine, University of Maryland, Baltimore, Md. 21201; and Virginia Li Wang, Ph.D., M.P.H., Health Education Specialist, Cooperative Extension Service, University of Md., College Park, Md. 20742. Letters should be sent to Dr. Wang.

2. University of Missouri--Columbia, Kansas City, Rolla, St. Louis.
Title: Consumer Health Information Program. Area 1--a rural area (Dent, Iron and Reynolds counties); Area 2--a region combining rural and urban elements (Henry, Johnson, Lafayette and Pettis counties); and Area 3--an urban area (the Model Cities section of Kansas City). For overall information, contact William A. Gates, Sr., Assistant Program Director, University Wide Extension, University of Missouri, Lewis Hall, Columbia, Mo. 65201.

3. Virginia: Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061; coordinately subscribing, University of Virginia, Charlottesville, Va. 22902 and Commonwealth of Virginia Department of Health, Richmond, Va. 23219.
Title: Virginia Consumer Health Education Demonstration. For information write Mr. M. Howard Bryant, Director, Department of Urban Affairs, P. O. Box 3697, University Station, Charlottesville, Va. 22903.

4. Wisconsin: University Extension, University of Wisconsin.
Title: Consumer Health Education. Write William L. Blockstein, Ph.D., Chairman, Health Science Unit, University Extension, University of Wisconsin, 610 Langdon St., Madison, Wis. 35706.

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18. JOHNS HOPKINS TO LAUNCH HEALTH SERVICES SCHOOL

With a $3,000,000 grant from the Robert Wood Johnson Foundation, the Johns Hopkins University, Baltimore, Md., is establishing a School of Health Services devoted to training middle-level health professionals such as nurse practitioners, physicians assistants and health associates. The Johnson Foundation President David E. Rogers believes the school's program "could emerge as a national model for incorporating this new professional field into the mainstream of university education in health."

The school will open with 50 students in September 1973. By the end of three years, the total enrollment is expected to be 200. Students will be admitted to the two-year program leading to a B.A. after they have completed two years elsewhere or if they have had prior experience that enables them to pass an equivalency exam. Those in the latter category would include graduate nurses and former military medics and medical technicians. Efforts will be made to attract students from local community colleges and technical hospital training programs, and close ties will be sought with high schools to identify early those students well-suited to become middle-level health practitioners.

The school will establish working linkages with other parts of the JH medical complex. To strengthen the concept of the health-care team, students from the medical school will take part of their work with students from the health services school. The JH Hospital will have an important teaching role.

For more information, write School of Health Services, Hampton House, 624 North Broadway, Baltimore, Md. 21205.

19. THE MEHARRY MEDICAL COLLEGE

As attention turns to the education, preparatory and continuing, of health professionals to provide good health care for all--particularly the poor and those who are in rural and urban-ghetto areas--Meharry Medical College becomes increasingly important.

Founded in 1876, Meharry Medical College, Nashville, Tenn., has graduated more black physicians than any other medical school in the world and more than half of the black doctors and dentists practicing in the United States. The great majority of its graduates have remained closer to primary care in their practice and to health care for the poor than have a cross-section of graduates of most other medical schools in the United States.

This historic commitment has been extended and reaffirmed by an institution-wide improvement plan begun in mid-1968. As part of this improvement, three primary care centers have been established--the "C and Y" (children and youth) Center, the "Adult Comprehensive Health Center," and the "Matthew Walker Neighborhood Health Center." These centers are backstopped by a new community mental health center, a multitest screening laboratory, and a center for health-care research.

The "C and Y" and the "Adult Comprehensive Health Center" are housed together in a new facility attached to Meharry's teaching hospital. The children and youth program, funded through the Children's Bureau, includes a comprehensive range of primary health services provided by pediatrician and nurse teams backed up by social services, nutritionist, dental and medical specialty services. A major emphasis is placed on early child developmental abnormalities and their adequate management.

The "Adult Comprehensive Health Center" attempts to refocus on primary health care provided through team practice, in a medical school setting. Such an approach, if successful, could be revolutionary because it would create an interdepartmental primary-care service program, backed by speciality services, with the traditional academic departments negotiating educational arrangements with the service heads, instead of the traditional precedence of "the teaching material" requirements over the primary services. The Adult program has been funded by the U.S. Public Health Service, but with no funds for inpatient services and only limited funds for outreach ad community organizational services.

The Matthew Walker Neighborhood Health Center is located in the community away from the college. Funded originaly through the Office of Economic Opportunity and subsequently

transferred to the Public Health Service programs branch, the center provides virtually all ambulatory primary-care services. The Matthew Walker Health Association, which has over 3,000 members, elects the Matthew Walker Health Council, which in turn, through its executive and other committees, is the key advisory group to the center's directors.

Meharry Medical College takes the position that new patterns of medical and dental education cannot take place without new service models where a social environment exists in which sensitive learning can occur with a focus on humanity.

A center for health-care research, funded in large part through the National Center for Health Services Research and Development, is attempting to evaluate the effects of these new programs on the community served and to compare and contrast effects over a period of years with the care provided by more traditional means in a different part of Nashville.

Together the community programs of Meharry serve a population of more than 120,000 Nashville residents. In addition Meharry is involved in several rural health projects in Tennessee and Mississippi.

On October 13, 1972, the Robert Wood Johnson Foundation announced a $5,000,000 grant to Meharry Medical College to enable it to expand its special urban and rural operations so that they may become national training programs for "frontline service in underdoctored areas."

Lloyd C. Elam, M.D., the president of Meharry, said the new grant will be used to hire about 40 faculty members for four specific programs. One involves the development of methods to teach team medicine to all health workers--doctors, nurses, social workers, physicians assistants. Another is to establish graduate programs of medical residences to prepare doctors to practice in communities with limited medical resources. Two other programs are designed for nurses--to upgrade some to become nurse practitioners, which means that they assume some of the jobs formerly performed by the doctor, and to train nurse practitioners in pediatrics and adult medicine, as well as nurse midwifery.

The continuing education programs of Meharry--for doctors, dentists and other health professionals--is remarkable in three ways: it is part of a continuum with preparatory education; it is integrated with service; and it is integrated with research into health-care delivery. The director of continuing education is Frank A. Perry, M.D., Meharry Medical College, Nashville, Tenn. 37208.

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20. NEW ENGLAND REGIONAL RESOURCE CENTER

A four-year program--from February 1971 through February 1975--is under way in New England for the training of regional health-care personnel and for the improvement of regional health care. It is jointly supported and conducted by the New England Hospital Assembly (NEHA) and the New England Center for Continuing Education. NEHA represents 416 hospitals in New England, and the New England Center is a cooperative facility of the region's six state universities.

The Director of Education of NEHA states the program goals:

1. To develop a "regional resource center" based at the New England Center that will provide audiovisual materials, consultants and educational programs, and other material for use by health-care facilities throughout the region.

2. To train instructors and educational administrators in the health-care field.

3. To develop research and demonstration models--"working models"--which can be adapted by the region's health-care facilities.

The program was designed partly in response to the need revealed by a survey by the NEHA showing that 39 percent of the region's hospitals had no organized personnel department and only 8 percent employed their own training directors.

For further information, write Richard G. Allen, Director of Education, New England Hospital Assembly, Office of Health Care Education, University of New Hampshire, Durham, N. H. 03824.

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24. "OPEN MEDICAL SCHOOL" IN KANSAS CITY

The University of Missouri-Kansas City (UMKC) has begun a new medical school operated on the concept of an "open medical school"--a community of scholars where medical training is received from active practitioners. Medical education is viewed as a continuum. Throughout training the patient is considered the textbook and the demonstration of first-class health service is one of the purposes of training.

UMKC has already launched and fully funded its undergraduate program on the plan. It has begun and partly funded its program of continuing medical education, which includes:

1. Sabbatical Leave program--to give the practicing physician an opportunity to work with a healthcare team and renew his knowledge and skills. A monthly stipend of $200 is offered.

2. Long Weekend Doctor-Wife programs.

3. Locum Tenens House Staff program--designed for physicians whose practices are covered by medical residents.

These and other programs for doctors, pharmacists, dentists and nurses are to be housed in a new physical facility to be known as the Academy of Health Professions, for which a site of land has already been received.

For more information, write I. Jay Diamond, M. D., Provost for the Health Sciences, UMKC School of Medicine, 2100 Rockhill Road, Kansas City, Mo. 64110.

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21. SELF-INSTRUCTIONAL MATERIALS PROJECT: SOUTHERN MEDICAL SCHOOL CONSORTIUM

Medical schools within the Southern Region of the American Association of Medical Colleges formed the Self-Instructional Materials Project in 1971. The first newsletter, dated October 1971, stated that the aims of the project include:

1. The training of faculty for production of self-instructional materials.

2. The try-out of materials among schools, with subsequent revision.

3. The sharing and dissemination of materials among consortium members.

On November 12, 1971, the Markle Foundation appropriated $75,000 in support of the project for one year. More than half of the member institutions provide funds to support the project. The May 1972 newsletter announced that the Bureau of Health Manpower Education and the National Medical Audio-Visual Center signed a contract to give funds to support the production and distribution of materials.

The activities of the project are workshops, a "package bank," reproduction and validation of materials, a directory of materials and a newsletter.

In October 1972 the newsletter announced that several faculty members within the Southern Medical School Consortium had been selected for current production of self-instructional materials in their respective fields of expertise, their work being underwritten by a $79,000 grant from the Sloan Foundation.

The Consortium Leadership Conferences are producing a growing cadre of medical educators who are workshop trainers. As of the spring of 1973 more than a dozen were in such institutions as Baylor, Bowman Gray, Medical College of Virginia, Medical University of South Carolina, University of North Carolina and the University of Kentucky.

As of 1973, 32 medical schools were members of the project, each with a coordinator. The schools were:

So. Alabama	Miami
Alabama	South Florida
Arkansas	Emory
Florida	Georgia

Kentucky
Louisville
LSU-New Orleans
LSU-Shreveport
Tulane
Mississippi
Bowman Gray
Duke
East Carolina
North Carolina
Puerto Rico
South Carolina
Meharry
Tennessee
Vanderbilt
Baylor
Texas-Southwestern
Texas-Galveston
Texas-Houston
Texas-San Antonio
Texas-Tech
U. of Virginia
Medical College of Virginia
Eastern Virginia

The executive secretary of the Self-Instructional Materials Project is Robert Crounse, M.D. The editor is Rita B. Johnson, Ed.D. The editorial office is School of Medicine, University of North Carolina, Chapel Hill, N. C. 27514.

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23. U. OF B. C. PROGRAM TO PREPARE CONTINUING EDUCATION SPECIALISTS IN THE HEALTH SCIENCES

The Department of Adult Education and Division of Continuing Education in the Health Sciences has established a program for the professional preparation of specialists in continuing education in the health sciences. Funded by the Kellogg Foundation in 1971, by 1973 the program had graduated three persons with master's degrees, held an international conference, developed four bibliographies, begun a mobile resource instruction center and was planning a second conference.

The first Kellogg Invitational Conference on Interprofessional Continuing Education in the Health Sciences was held at the University of British Columbia on June 4, 5 and 6, 1972. Proceedings are available (W. K. Kellogg Foundation Project Report No. 2). A second conference, this one on self-directed learning in the health sciences, is planned for June 1973.

June Nakamoto, R. N., Research Assistant, and Coolie Verner, Professor of Adult Education, have compiled four bibliographies: "Continuing Education in Medicine: A Review of North American Literature 1960-1970" (W. K. Kellogg Foundation Project Report No. 3); "Continuing Education in Nursing: A Review of North American Literature 1960-1970" (W. K. Kellogg Foundation Project Report No. 4); "Continuing Education in Dentistry: A Review of North American Literature 1960-1970" (W. K. Kellogg Foundation Project Report No. 5); and "Continuing Education in Pharmacy: A Review of North American Literature 1960-1970" (W. K. Kellogg Foundation Project Report No. 6). These four bibliographies have been published together by ERIC Clearinghouse on Adult Education in one volume "Continuing Education in the Health Professions."

In addition to the two conferences, one held and one planned, the project has given two courses and workshops on adult learning and instruction. In May 1973 it began its Mobile Resources Instruction Centre--a van with literature, programmed instruction audiotapes etc. going about British Columbia spending time in various communities.

For more information, write Professor Coolie Verner, Adult Education Research Centre, University of British Columbia, Vancouver, B. C.

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24. COMMUNITY HOSPITALS INFORMATION CENTERS

The Community Hospital Information Center program in Northern New England is a demonstration of a way in which small hospital library services can be much improved with relatively little initial investment. The program is conducted by the Dana Medical Library at the University of Vermont, Burlington--"a self-appointed area library within the New England region."

The director of the program, Mrs. B. Gail Weinsieder, has published an article, "Cooperative Venture Proves Successful," in Hospitals Vol. 46, No. 2, January 16, 1972, giving an account of its beginning and first two years in Vermont.

The first step was to determine not only that the state of small hospital libraries in Vermont was deplorable but also the reasons, which were found to be inadequate collections of materials, inadequate personnel, inadequate space, and the absence of a practical indexing system. The second step was to change the image from a "library" to an "information center." Service became the key word. The Dana Medical Library opened its Hospital Library Development Services (HLDS) office to help establish and improve hospital library facilities throughout the state. It arranged financing through the Office of Continuing Education for Health Sciences and the Northern New England Regional Medical Program.

Hospital libraries were invited to cooperate. The only financial commitment they were asked to make was to hire a service-conscious person to work at least half-time as the Information Center Director. The HLDS offers basic training for new hospital librarians and also conducts continuing education workshops.

Parallel with the emphasis upon personnel was an emphasis upon materials and equipment. An offer was made to give the hospital a one-year subscription to Cumulated Index Medicus, Hospital Literature Index, and International Nursing Index. (Abridged Index Medicus was later substituted for CIM.) A core book collection was made available to hospital Information Centers on a four-month loan basis.

Unique to the University of Vermont Information Center concept is a standard collection of basic audiovisual equipment (BAVE). The BAVE project allows hospital Information Centers to purchase a BAVE set for 25 percent of the full price, with the remaining being paid by the Northern New

England RMP. The Dana Medical Library's collection of software, as well as printed matter, is available to New England hospitals through interlibrary loan.

Concluding her early report, Mrs. Weinsieder says, "We ask for a proving time during which we try to supply many of the support services necessary, so that administrators will know what they are being asked to fund and, more precisely, how an Information Center can assist hospital personnel and improve patient care. Our experience thus far has convinced us that the product is good and, in fact, will sell itself if people have a chance to try it first."

For information, write Mrs. B. Gail Weinsieder, Director, Hospital Library Development Services, Charles A. Dana Medical Library, University of Vermont, Burlington, Vt. 05401.

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25. THE HEALTH SCIENCES UNIT OF THE UNIVERSITY OF WISCONSIN-EXTENSION

Health Sciences Unit is the official name given to that area of University of Wisconsin-Extension that encompasses an integrated faculty engaged in continuing education, research and service in the health professions and related sciences.

The concept of an integrated group of specialists offering continuing education in the health-related disciplines began when a 1966-appointed Health Programs Task Force reported to Dean Harold Montross of the University of Wisconsin-Extension in 1967. On July 1, 1969, the Health Sciences Unit was established in the Professional and Human Development Division of the University of Wisconsin-Extension.

The Health Programs Task Force report had suggested that a faculty group be formed to communicate, study and program in identified areas of need for health workers' continuing education. This group was to integrate the ongoing (but separate) program activities of University of Wisconsin-Extension's Departments of Pharmacy (organized in 1949), Nursing (1955), and Medicine (1965); other groups were to be added. As of January 1973 these new groups were Community Health and Health Facilities Administration (both organized in 1969), and Continuing Education in Mental Health (1971). Possible courses of action for the reorganized faculty to consider included innovation in programming and in cooperation as well as the development of research proposals in health-related areas. The Health Sciences Unit that was formed was asked to consider these activities and others that could be addressed in the context of a multidisciplinary setting with the ultimate objective of catalyzing changes in health-service delivery.

The faculty who make up the Health Science Unit are appointed solely in University Extension, hold joint appointments with departments across the several campuses in the University of Wisconsin System; others have full-time appointments on campus locations and are granted courtesy appointments with the departments and program units in the Unit for communication and programming arrangements.

The mandate given to the faculty of the Health Sciences Unit includes: (1) continuing education for the professional; (2) work with the institutions of health care; (3) work with persons supportive to health care; (4) community health--physical, mental and environmental.

In addition to the general mission statement, certain departments and program units in the Health Sciences Unit have adopted their own statements of objectives. These, of course, are constantly being refined as new developments occur or as trends are forecast.

The strength of the Unit comes from faculty activity along traditional lines--teaching, research and service. Strength is increased by new lines of communication, coordination and program innovation, by broad-based acceptance of faculty actions not only by individuals but also by institutions and agencies from local, state and national levels.

Evidence of the growth of health activity generated by the Unit faculty is found in faculty size, location both of faculty and teaching sites, programs offered and students reached, faculty activity, and new patterns of communication established to further the mandate of improvement in health services delivery.

Faculty Size:

In 1969-70, when the Unit was formed, there were 18 full and part-time faculty; by 1970-71 there were 32 full and part-time faculty and specialist staff; in 1971-72 the total group numbered 42, including for the first time a number of faculty with courtesy appointments.

The specialties range from pediatric cardiology to occupational therapy and include 5 pharmacists, 11 physicians, 15 registered nurses, and a variety of other health or health-related professionals. The mix is further exemplified by cross-appointments such as the physician-pharmacologist appointed to Pharmacy; the two registered nurses and one hospital administrator in Medicine; the two nutritionists and one psychiatrist located in Community Health; the occupational therapists, clergyman and adult educator included in Mental Health; and the industrial engineer cooperating in Health Facilities Administration.

In the early days, the faculty was located primarily in Madison and Milwaukee; by 1971-72, faculty were officed in these two cities as well as five other Wisconsin communities.

Teaching Sites:

With the availability of Wisconsin's educational telephone network, it is possible to reach students at over 150 locations through the tele-conference technique. Education is offered through other means, of course. In 1969-70, 40 cities and towns in Wisconsin were served by one or more Health Sciences

Unit programs in the traditional classroom setting. By 1970-71, there were 47 such classes involving direct instruction; this number was augmented by service, through single lectures, offered in an additional 37 cities and towns in the state. In 1971-72, 77 Wisconsin communities were reached through classroom contact and single lectures reached an additional 81 cities and towns.

Programs and Students:

Health-care professionals and citizens (numbering 17,719, and including 4,480 nurses, 1,317 physicians and 2,419 pharmacists as well as allied health professionals and consumers) were in direct contact in 1969 with the departments and program units in the Health Sciences Unit, through the 160 offerings, including telephone conferences, short courses, conferences, institutes, programmed learning, correspondence courses, special classes, single concept films, workshops, refresher courses, symposia, and television teaching.

During 1970-71, 10,366 health professionals enrolled in courses, an additional 16,426 professionals and paraprofessionals were served, and over 15,400 consumers were in direct teaching contact with the Health Sciences Unit through 234 program offerings similar to those described above.

By 1971-72, the Unit had enrolled 12,689 health professionals and 845 health professions students in courses, served an additional 38,951 professionals and paraprofessionals through extensive media usage and had direct contact with over 22,200 consumers. This was accomplished through 275 program offerings including Telephone Dial Access for physicians and nurses and a specially prepared sound-slide presentation on drug abuse, in addition to those previously detailed.

Fee Income and State Support:

In 1969-70, revenue from fee income and sales of material stood at $244,641 with a state support of $199,935; in 1970-71 revenue amounted to $291,396 and state support to $269,254. For 1971-72, $294,230 came to the Unit as income and was augmented by $276,727 of state funding. (Outside support such as gifts, grants research and demonstration is listed in "Research and Demonstration Support," below.)

Faculty Productivities:

Total records were not maintained in the initial year of operation of the Health Sciences Unit. In the 1970-71 year, the Unit faculty was responsible for the production

of 27 professional and technical articles, 24 editorials, 5 chapters for texts, 2 books, 8 program learning units, 15 film loops for independent learning, and 20 issues of departmental newsletters or bulletins for students in continuing education activities.

For 1971-72, the Unit faculty was responsible for the production of 17 professional and technical articles, 25 editorials, 5 book reviews, 2 books, 6 independent study packets, 107 Dial Access tapes, 3 cassette tape books comprising 23 study units, 12 single concept film loops for teaching/learning and 22 issues of departmental newsletters or bulletins.

Papers and Consultations:

Papers, speeches and presentations were given, upon invitation, during 1970-72 by Unit faculty at 266 meetings of professional or citizen groups in Wisconsin and in 34 other states before professional, educational or citizen audiences. Unit faculty were invited to serve as consultants on continuing education, in their respective disciplines to 60 institutions and agencies in Wisconsin and in 39 other states and the District of Columbia and in two other countries.

Research and Demonstration Support:

In the first year the Unit was organized, over $128,000 in outside support from state, federal and private sources was made available for research and demonstration; in the second year, the sum exceeded $302,000; and in the third year (1971-72) research and demonstration activities received support of $741,000. The projects ranged from Dial Access research and demonstration, rural health development, individual physician profile, and consumer health education, to studies of the feasibility for a nationwide telephone conference network.

Clients
~~Climate~~:

Among others, the Unit serves: physicians; nurses; pharmacists; podiatrists; food service workers; dietitians; hospital administrators; nursing home administrators; medical librarians; medical record administrators; medical technologists; occupational therapists; physical therapists; department heads and supervisors in hospitals, clinics and mental health institutions; hospital trustees; clinical pathologists; laboratory assistants; operating room technicians; anesthesiologists; nurse anesthetists; nutritionists; radiologists and radiotherapists. Through cooperative arrangements, attempts are made to serve the needs of mental health workers, medical social workers, the clergy,

vocational rehabilitation specialists, school personnel, lawyers and law enforcement personnel, dentists and finally, interested citizens and consumer groups concerned with issues in health care. And, to the degree that space and resources allow, students in the several health professions are encouraged to participate (at little or not enrollment fee) so as to acquaint them with the personal and professional advantages of continuous education.

Communication Patterns:

The Health Sciences Unit faculty hold positions of leadership or consultative responsibility with such groups as the Wisconsin Regional Medical Program; various comprehensive health planning groups throughout the state; national and state health manpower programs; national and state professional societies in medicine, nursing, pharmacy, social work, hospital administration, and extension education; state agencies such as the Department of Public Instruction, the Department of Health and Social Services and its divisions of Health, Mental Hygiene, Family Services and the section of hospitals and related facilities and services; the Wisconsin Nursing Home Administrator Examining Board; the Attorney General's Technical Advisory Committee on Drug Abuse; State of Wisconsin Dangerous Substances Control Council; State of Wisconsin Drug Abuse Control Commission; the ad hoc committee on Drug Abuse of the Wisconsin Department of Health and Social Services; the Governor's Commission for Children and Youth; the Advisory Committee on Poison Prevention and Control; Vocational, Technical and Adult Education Advisory Committee, the Governor's Health Planning and Policy Task Force; and an entire array of private and voluntary groups ranging from heart associations to local health and welfare groups, to associations working with disturbed children and youth, and also various ad hoc citizen health action groups. In many instances, faculty consultation results in internal programs for the groups involved; thus the faculty have acted as catalysts for continuing education or inservice activities.

In addition to these contacts, another mechanism to build effective communications to and with the Unit is the "Health Professions Dean's Advisory Council" to the Health Sciences Unit. The membership of the advisory council presently is made up of the Madison campus deans--medicine, nursing and pharmacy; Milwaukee's nursing dean; Green Bay's dean of the colleges; and Parkside's representative from life sciences. The council members contribute significantly to the Unit both for program and for budget planning; communicate with the unit and among themselves; and in the total process, serve all parts of the University System.

Another example relating to communication and cooperation is shown by multidisciplinary participation in monthly Health

Sciences Unit faculty meetings. The members of the Unit are joined by: the assistant coordinator for education of the Wisconsin Regional Medical Program, the continuing education director of the Manpower and Training Section of the Division of Mental Hygiene of the Department of Health and Social Services; the director of the Bureau of Comprehensive Health Planning, who is also the chief state health officer in the Division of Health of the Department of Health and Social Services; the director of education of the Wisconsin Hospital Association; and such colleagues as those from dietetics, community programs, etc., from within the University system who are not housed or tied administratively to the Health Sciences Unit. At these sessions, are discussed items of mutual interest that relate to the health-care needs of Wisconsin citizens; from these discussions develop educational programs aimed at continuing the education of health care workers.

Innovative Approaches:

Innovative approaches in programming developed by the faculty of the Unit include: the Tele-conference Technique, first used by the Department of Postgraduate Medicine, now serving over 19,474 citizens yearly by many departments and units within all of University of Wisconsin-Extension; Dial-Access Tapes, initially developed for physicians and nurses, now serving hospitalized patients, consumers seeking health education and information, and students on the UW-Madison campus; Single Concept Films, a closed-loop audio-visual teaching device for individual or group learning in the health professions; the Cassette Tape Packet, including audiotapes, textual and graphic material for individual or group study; the on-campus lecture/demonstration/laboratory short course to upgrade industrial pharmaceutical technicians; the multidisciplinary learning setting for helping professions concerned with physical and mental handicaps; and the development of individual study packets, either programmed learning or text and directed study materials to upgrade nursing practice.

* * * *

The spin-off from innovations and research results in added opportunities to effect change. The industrial short courses led to the publication of a two-volume treatise dealing in detail with the scientific principles and applications of advanced pharmaceutical technology. Efforts in model building in consumer health education through Extension efforts led to four Federally-funded demonstrations (underway in Missouri, Maryland, Virginia and Wisconsin). The multidisciplinary learning efforts for workers with severely handicapped led to a contract to develop textual and teaching materials for nationwide cross-modality teams, and the success of the Dial Access system has led to replication of the total system or its parts in at least seven additional states.

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C. ACTIVITIES REGARDING ROLES, LICENSURE, ACCREDITATION, ETC.--No. 26 Through No. 31

26. "ABSTRACT FOR ACTION"

All persons interested in nursing education, particularly continuing education in nursing, should be familiar with the National Commission for the Study of Nursing and Nursing Education, and the follow-up actions. The Commission published in the spring of 1970 its final report and recommendations An Abstract for Action, New York: McGraw Hill Book Co., 1970, and An Abstract for Action, Volume II, Appendices, New York: McGraw-Hill Book Co., 1970 (Appendix F is a Summary of Recommendations from Previous Studies of Nursing). Four of the Commission pamphlets are particularly useful, available from the NCSNNE Office, 208 Westfall Road, Rochester, N. Y. 14620: "Abbreviated Summary Report" (10¢), "Continuing Education in Nursing: Necessity and Opportunity" (25¢), "A Guide for Establishing Statewide Master Planning Committees" (25¢), and a "A Guide for Establishing Statewide Joint Practice Commissions" (25¢).

"Continuing Education in Nursing: Necessity and Opportunity," after arguing that increased knowledge about patient care makes continuing education necessary, classifies the range of needs under "advanced education," "continuing education," and "inservice education." It argues that "there must be some more systematic approach taken in the future" and recommends that each state establish (1) a statewide master planning committee for nursing education" and (2) a statewide joint practice commission.

"A Guide for Establishing Statewide Master Planning Committees" develops the recommendation that "Each state have, or create, a master planning committee that will take nursing education under its purview, such committees to include representatives of nursing, education, other health professions, and the public, to recommend specific guidelines, means for implementation, and deadlines to ensure that nursing education is positioned in the mainstream of American educational patterns." A more specific recommendation is at the state master planning committee for nursing education "identify one or more institutions to be responsible for regional coverage of continuing education programs for nurses within that area, and further that: (a) Federal and state funds be utilized to plan and implement continuing education programs for nursing on either a statewide or broader basis (as suggested by the current interstate compacts for higher education); and (b) In the face of changing health roles and functions, and the interdependence of the health professions, vigorous efforts be taken to have continuing education programs jointly planned and conducted by interdisciplinary teams."

"A Guide for Establishing Statewide Joint Practice Commissions" expounds the recommendation that "A national Joint Practice Commission, with state counterpart committees, be established between Medicine and Nursing to discuss and make recommendations concerning the congruent roles of the physician and nurse in providing quality health care, with particular attention to: the rise of the nurse clinician; the introduction of the physician's assistant; the increased activity of other professions and para-professions in areas long assumed to be the concern solely of the physician and/or the nurse."

In September 1971 the Boards of Directors of both the American Nurses Association and the American Medical Association took affirmative action with regard to the establishment of the National Joint Practice Commission, and the first meeting of the NJPC took place in St. Louis, Mo., on January 20-21, 1972.

In April 1971 the National Commission on Nursing and Nursing Education,--after consultation with the Division of Nursing of the Public Health Service and nurse leaders from the Interstate Compacts for Higher Education--designated nine states for initial, intensive effort to establish statewide planning committees: California, Georgia, Illinois, Kansas, Maine, North Carolina, Pennsylvania, Texas and Wyoming.

For materials or further information, particularly on the fast developing action on these recommendations, write Dr. Jerome P. Lysaught, Director, National Commission for the Study of Nursing and Nursing Education, 208 Westfall Road, Rochester, N. Y. 14620.

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27. CALIFORNIA COUNCIL ON CONTINUED EDUCATION FOR HEALTH OCCUPATIONS

In California as of 1975 both registered nurses and licensed vocational nurses will be required to inform themselves of developments in their fields either by pursuing an approved course of continuing education or by other means deemed equivalent in the field. The license holder may elect to take an examination given by the board on developments in the field since the issuance of the license or its latest renewal. The same Act (Assembly Bill No. 449, approved by the Governor, November 15, 1971) established a Council on Continuing Education for Health Occupations with primary responsibility for implementing all statutory requirements for continuing education. The Council is holding public hearings to allow all interested persons and organizations to take part in the development of the Continuing Education standards. For more information, write Martin R. Petersen, Executive Secretary, Council on Continuing Education for Health Occupations, 2817 O St., Sacramento, California. 95816.

28. ILLINOIS REPORT ON LICENSURE STUDY

A summary of a 149-page report on a six-month study of Illinois licensure laws, titled Cooperative Study of Health Manpower Licensure Rules, Regulations and Procedures is available. The purposes of the study were (1) to "review existing Illinois laws, regulations, administrative policies, legal opinions and field operations pertaining to health manpower licensing and registration"; (2) to "compile statewide experience, including specific cases of possible negative effects on health workers, health-care providers, institutions, and, ultimately, health-care delivery in Illinois"; and (3) to "formulate recommendations to the Governor of specifications that can be taken to simplify, expedite and give flexibility to the administration of existing laws and regulations." For a copy, write the Comprehensive State Health Planning Agency, 525 W. Jefferson St., Springfield, Ill. 62706.

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29. ILLINOIS HOSPITAL CREDENTIALING

In August 1972 Rush-Presbyterian-St. Luke's Medical Center, Chicago, received a $96,000 grant to finance phase I, the development of a demonstration project in Illinois of "Credentialing Health Personnel by Licensed Hospitals," as a supplement or alternative to existing forms of licensing, accrediting or registering of health personnel in dependent roles. The objective is to learn whether the quality of hospital patient care can be better assured when each hospital annually reviews and credentials its own allied health personnel. Can the hospital credential all members of its health-care team just as it now evaluates the credentials and defines the privileges of its medical staff? Credentialing hospital physicians is required by state law and for JCAH accreditation. Phase II, the actual field study and evaluation, would be undertaken after a year, with a second grant contingent upon the development of an acceptable plan in phase I. Project sponsors are the boards of trustees of the Illinois Hospital Association, the Illinois Nurses Association and the Illinois State Medical Society. The address of the Illinois Hospital Association is 840 N. Lake Shore Dr., Chicago, Ill. 60611.

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30. RENEWAL OF PROFESSIONAL LICENSE OR PROFESSIONAL ASSOCIATION MEMBERSHIP BASED ON EVIDENCE OF CONTINUING EDUCATION

The staff of the Illinois Interagency Task Force on Health Manpower on June 6, 1972, was asked to prepare a digest of what has been done in the area of continuing education as a requisite for renewal of professional licensure or professional association membership. On July 20, 1972, Don C. Frey, Chairman of the Interagency Task Force, mailed to the members a digest with references. The digest contained the following:

1. A chart of 18 national professional associations and societies, with an "x" in one of three columns--"required," "voluntary," or "to be considered," followed by a brief "program description."

2. A chart of 13 state medical associations, with the same information presented in the same way.

3. A chart concerning dentists organized under the following headings: "states in which continuing education is required for dental relicensure"; "states in which continuing education is required for maintaining membership in state dental societies"; "states in which enabling legislation will be submitted to the legislature"; "states in which enabling legislation has been passed"; "states in which voluntary programs have been implemented"; and "states in which continuing education requirements are under study."

4. A chart of continuing education requirements for relicensure for optometrists (23 states--18 by law, 5 by board rule--more than any other health profession); after the name of each of the 23 states is listed the "authority" and the "hours" per time-period (1, 2 or 3 years).

5. A detailed listing of the "required and elective programs for fulfilling continuing education requirements" for members of the Arizona Medical Association.

6. A list of references.

The Illinois Interagency Task Force on Health Manpower has now (4-1-73) been terminated. Don C. Frey is now with Health Careers Council of Illinois, 410 N. Michigan Ave., Chicago, Ill. 60611.

3/. FOLLOW-UP ON THE SASHEP REPORT

The Council on Medical Education of the American Medical Association took the initiative in proposing that a cooperative study of health educational accreditation be undertaken. This proposal resulted in the Study of Accreditation of Selected Health Educational Programs, commonly referred to as SASHEP. Sponsored by the Association of Schools of Allied Health Professions, the Council on Medical Education of the American Medical Association, and the National Commission on Accrediting, the study was supported by a grant from The Commonwealth Fund.

Volume I of the SASHEP Staff Working Papers was published in October 1971, including: "Historical Introduction to Accreditation of Health Educational Programs," "Structure of Accreditation of Health Education Programs," "Research in Accreditation of Health Educational Programs," "Expansion in Accreditation of Health Educational Programs," and a commissioned paper titled "Accreditation of Postsecondary Education: Problems in Organization."

Volume II of the Staff Working Papers was published in February 1971, including "Dilemmas of Accreditation of Health Educational Programs," "An Approach to Accreditation of Allied Health Education," "The Relationship of Accreditation to Voluntary Certification and State Licensure," and a second commissioned paper titled "The Law's View of Professional Power: Courts and the Health Professional Associations."

The SASHEP Commission Report was released in May. Its main recommendation was the establishment of an independent organization--the Council on Accreditation for Allied Health Education--to "sponsor, coordinate, and supervise the accreditation of the selected allied health education programs." The proposed Council would be composed of physicians, allied health professionals, educators, representatives of institutional employers, public representatives, other health professionals, and representatives of the Federal government. The voting membership would be composed of all except the last two groups. The Council would provide a forum for discussion of issues and study program analyses, approve standards for accreditation, supervise program accreditation through an Accrediting Committee, evaluate existing and new programs, and serve as liaison with certifying and licensing agencies.

The SASHEP report called for discussion and implementation meetings of representatives of concerned organizations. Accordingly, the three cosponsors of the project convened a meeting in Washington, D. C., on November 13 and 14, 1972. Over 125 organizations were represented by more than 250 participants. A summary report of the meeting is available from SASHEP offices. The responses were too varied and too tentative to be summarized, but it is plain that consequences will follow from the SASHEP report and recommendations.

For materials and further information, write Study of Accreditation of Selected Health Educational Programs, Suite 300, One Dupont Circle, Washington, D. C. 20036.

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D. PUBLICATIONS AND FOLLOW-UP ACTIVITIES--No. 32 Through No. 39

32. DETERMINATION AND DIAGNOSIS OF LEARNING NEEDS OF MICHIGAN PHYSICIANS

The study, directed by Floyd Mann, made of Michigan physicians between 1968 and 1970 by the Center for Research on Utilization of Scientific Knowledge (CRUSK) is one of the most carefully planned studies of group characteristics and group needs for continuing education that has ever been made. It deserves attention for its methods as much for its findings. The study was a two-phased operation that began in the fall of 1968. The first phase was a survey of the attitudes and opinions of physicians regarding continuing education. The second phase was designed to identify the more active and influential physicians in the formal and informal information exchange systems that exist within medical staffs and to learn what distinguished these men and women from their colleagues. The exacting procedures followed, and their many findings and the implications of these findings should be pondered carefully. A reprint of a series of articles in Michigan Medicine is available from the Center for Research on Utilization of Scientific Knowledge (CRUSK), Institute for Social Research, University of Michigan, Ann Arbor, Mich. The articles reprinted appeared in Michigan Medicine monthly from November 1970 through June 1971.

The final article summarizes what was found that distinguished "criterion physicians"--the doctors to whom doctors turn--from the general sample of medical doctors. The concluding paragraphs in the entire series follows:

> The data...turned our attention to certain groups which planners should concentrate on if the total flow of medical information throughout Michigan is to be facilitated.
>
> The first of these groups is medical doctors in general practice. ...
>
> The second group consists of doctors of osteopathy. ...
>
> The final group of interest is composed of criterion physicians, doctors' doctors and informal/formal consultants. Young, highly motivated, confident of their ability, already far advanced professionally, these physicians appear to be important not because more educational effort needs to be directed their way but because they have a great deal of potential as educators. Indeed, one might say that they are the key to improving the educational picture in Michigan. They are in touch with the best sources of medical information and they are already serving in some capacity as on-the-spot educators of their colleagues. If their skills as educators can be significantly improved, and if they can turn more of their attention to the educational needs of the generalist, they will provide that unique resource that could lead to dramatic improvement in the quality of education at the point where most physicians want it--in their immediate environment.

# #

33 DIFFUSION AND COMMUNICATION OF INNOVATIONS

Everett M. Rogers, author of Diffusion of Innovations (New York: The Free Press, 1962) and (with F. Floyd Shoemaker) of Communications of Innovations (the revised edition, 1971) has put all the publications of research on the diffusion of innovations into an information retrieval system and he incorporates new publications as they arrive. One of the ways the information is organized is by generalizations. (A generalization is a statement of relationship between concepts: e.g, between innovativeness and cosmopoliteness.) This computerization makes it possible to retrieve all the references to a certain generalization, organized according to whether they support or do not support the generalization.

For more information, write Dr. Everett M. Rogers, Diffusion Documents Center, Michigan State University, East Lansing, Mich. 48823.

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34. EQUIVALENCY AND PROFICIENCY TESTING

The use of tests to equate knowledge, experience and skill however acquired with prescribed levels of formal training (equivalency testing) and to match people with jobs on the basis of measurable ability to perform them (proficiency testing) is receiving increasing attention by those concerned with manpower shortages in health-related occupations. The place where most information is available and from which most of the impetus is coming is the Division of Allied Health Manpower, Bureau of Health Manpower Education, Public Health Service, National Institutes of Health, U.S. Department of Health, Education, and Welfare.

The best single document surveying testing programs in allied health and other health fields existing in 1971 is Equivalency and Proficiency Testing, available from the Division of Allied Health Manpower (U.S. Government Printing Office: 1971: 432-628/3121).

The publication summarizes a review that was undertaken upon the recommendation of a conference on "Manpower for the Medical Laboratory" held at the University of Maryland in October 1967. Its table of contents is given below:

Testing Programs in the Medical Laboratory Field

Certification Examinations

American Board of Pathology Examinations

Board of Registry of Medical Technologists (Certification Examinations for Medical Laboratory Technician, Certified Laboratory Assistant, Blood Banking, Chemistry, Histologic Technic, Microbiology, Nuclear Medical Technology, Other Specialist Certification)

The American Academy of Microbiology Examinations

National Registry in Clinical Chemistry Examinations

Federal and State Licensure Examinations

State Personnel Licensure Examinations, including Model State Laws

Independent Laboratory Director's Examination

Laboratory "Proficiency Testing"

Proficiency/Equivalency Examinations

Federal and State Civil Service Examinations with Examples of State Examinations

U. S. Air Force Testing

U. S. Army Testing

U. S. Navy Testing

American Medical Technologists Proficiency Testing Program

Miscellaneous

Special Veterans Administration Tests for Medical Laboratory Technicians

Suggestions for Evaluation of Retrained Medical Technologists

Testing Programs in Other Health Fields

FLEX--Federation Licensing Examination

Educational Council for Foreign Medical Graduates (ECFMG)

Certifying Examinations for Dental Assistants

A Testing Battery for Dentists

National Board of Medical Examiners Examinations

Nursing Examinations

American Board of Orthopaedic Surgery

Physical Therapists Certification Examination

Physical Therapy Assistants Examination

Testing Programs in Other Fields

U. S. Civil Service Commission Examinations

Credit-by-Examination Programs of Colleges and Universities

New York College Proficiency Examination Program (CPEP)

The College-Level Examination Program (CLEP)

Tests of General Education Development (GED)

Engineering Technicians Examinations

Trade and Industrial Education Teachers Competency Examinations

Other Procedures

The Commission on Accreditation of Service Experiences

Practices of Allied Health Schools in Granting Credit by Examination

Laboratory Personnel Procedures in Canada, Great Britain and Sweden

Bibliography

An annotated bibliography of 108 items (books, articles, theses, reports, unpublished papers, etc.) is organized under the following headings:

Health Manpower and Career Mobility

Mobility and Testing in the Medical Laboratory Field

Testing in Health Professions

Testing Nurses

Granting Academic Credit by Examination

Transfer from Military to Civilian Health Fields

Licensure and Other Governmental Regulations

Testing in Education and Industrial Fields

Testing--General References.

* * *

Three subsequent developments are reported below:

"New approaches to qualifying personnel for careers in inhalation therapy, occupational therapy and radiologic (X-ray) technology will be developed under three contracts awarded by the Division of Allied Health Manpower, Bureau of Health Manpower Education. Recipients of the awards, totaling nearly $414,000, are the American Association for Inhalation Therapy, the American Occupational Therapy Association and the Educational Testing Service."--Operation MEDIHC: A bi-monthly newsletter published by the National Health Council, September 1972.

"The College-Level Examination Program (CLEP) now offers four new CLEP subject matter examinations related to the field of medical technology--clinical chemistry, hematology, immunohematology (blood banking), and microbiology. Under a grant from the National Institute of Health, the new examinations were developed to provide opportunities for qualified people to get degrees in medical technology without spending time on course material that they have already mastered. The medical technology examinations can help people with practical experience--as medical corpsmen in the Armed Services or from work in medical laboratories--to demonstrate and receive credit for college-level knowledge acquired through experience."--The College Board News, January 1973.

In 1972 the American Medical Association established a subcommittee on Proficiency and Equivalency Examinations.

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35. JOURNAL OF CONTINUING EDUCATION IN NURSING

This journal is published bimonthly, Vol. 1, No. 1 dated May 1970. The editor-in-chief is Dorothy J. Hutchison, R.N., M.A., Associate Professor, Department of Nursing, Health Sciences Unit, University Extension, the University of Wisconsin. Among its purposes are "to report program designs and educational approaches which have proved effective..." and "to present experimental and innovative approaches which offer new and more promising routes to the adult nurse learner." It regularly features important documents, colleague exchange, educational opportunities and book reviews. Subscriptions in the U.S.A. and possessions are $18 for one year, $32 for two years, and $44 for three years. Single copies and back issues, when available, are $3.50. The address of the publisher, Charles B. Slack, Inc., is 6900 Grove Road, Thorofare, N. J. 08086.

36. PATIENT CARE

Patient Care--the Journal of Practical Family Medicine--is a magazine that not only deals extensively with continuing education but is itself an instrument for continuing education. First published in January 1967, its objectives are: "...to help the family physician provide more effective and efficient care for his patients, day by day and on a continuing basis. It is intended for both current reading and continuing reference." It has four special features: "Express Stops"--short summaries; "Flow Charts"--memory aids accompanying some major articles; "Patient Education Aids"--certain articles with messages written specifically for patients; and "Resource Files"--highly selected lists of supplementary reading, available on request at no charge.

Three of the best collections of articles on continuing medical education available anywhere are three issues in 1971: May 15, May 30 and June 15.

The January 1, 1973, issue is titled "Patient Care, 1973," with articles on innovations in clinical medicine, the epidemiological outlook, what the new PSRO's will mean, new laboratory tests, possible new drugs, the records revolution, and the health economics picture.

Patient Care is published the 1st and 15th of each month, except July, August and December, when just the issues of the first are published. The price is $1 a copy, $20 per year.

It is published by Miller & Fink Publishing Corp., 165 Putnam Ave., Greenwich, Conn. 06830.

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37. DIGEST FOR CONTINUING EDUCATION IN PSYCHIATRY

The Southern Regional Education Board publishes the Physician's Digest for Continuing Psychiatric Education Programs. It is designed for persons either planning to teach or teaching in education programs in psychiatry for physicians but many of the items are useful to other medical educators. It pulls together from the literature and from various people's experiences the most useful points that bear on facets of continuing education for physicians.

The Digest is not published at regular intervals but is prepared when there is enough content material available on a single topic in continuing education inpsychiatry. Some topics that have been discussed are:

The family physician and the psychiatric elements in his practice.

Variations in patient management and how to determine physicians' educational needs in psychiatry.

Planning continuing education programs in psychiatry.

The rural family practitioner and his needs for continuing psychiatric education.

Psychological aspects of adult learning.

Instructional theory and methods.

Programs in interpersonal dynamics.

Continuing psychiatric education for physicians with a predominantly pediatric practice.

There is no subscription price. Single copies are available upon request or a complete set of back issues. For information about the project that sponsors the Digest or copies of it, write Harold L. McPheeters, M. D., Director, Commission on Mental Illness and Retardation, 130 Sixth St., N. W., Atlanta, Ga. 30310.

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38. CONTINUING EDUCATION IN PSYCHIATRY

Psychiatric Education and the Primary Physician, prepared by the American Psychiatric Association's Committee on Psychiatry and Medical Practice, is a report "intended as a guide for those interested in planning programs of continuing education in psychiatry--to orient them to the general goals of the field, to summarize and review achievements to date, to identify issues that continue to be vexing problems, to describe specific methods and programs that have developed, and to indicate possible directions for future activities." Included in the report is an outline of a step-by-step procedure for developing a program for postgraduate training in psychiatry; the outline might also be adapted to continuing education programs in other fields of medicine.

Concerning community health centers, the report states it "seems likely that the medical staff of most centers will include many physicians who are not psychiatrists, but who will need the kind of training that can be provided by postgraduate education programs in order to function best within the community mental health center." Moreover, "Part of effective collaboration with other physicians must also include continuing education of the psychiatrist himself in the many advances in other fields of medicine."

Among the stated goals of postgraduate education in psychiatry for primary physicians are:

1. To improve communication between psychiatrists and other physicians.

2. To teach the primary physician to recognize and treat minor disturbances and to diagnose and refer patients with major psychiatric illnesses.

Included in the appendices are excerpts from a report of a survey of Colorado Medical Society membership regarding their activities in mental health; guidelines for evaluation of continuing education programs in mental health; sources of consultation and information--names of individuals who can provide further information and assistance regarding continuing education programs; and a list of references.

The report is the second in a series of Task Force Reports by the APA. It was published in 1971. Copies of Task Force Report #2, Psychiatric Education and the Primary Physician, are available for $3.00 each from Publications Services Division, American Psychiatric Association, 1700 18th St.,N.W., Washington, D. C. 20009

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39. QUALITY ASSURANCE OF MEDICAL CARE

The proceedings and a summary pamphlet are available of the Regional Medical Programs Service Invitational Conference on Quality Assurance of Medical Care held in St. Louis, Mo., on January 22-24, 1973.

The 28 papers presented to the conference cover a wide range of subjects dealing with quality assurance in the professions of medicine, allied health and nursing, including (1) standards of assessing quality of care, (2) state licensing boards and quality assurance, (3) institutional criteria--internal accreditation, (4) external evaluation of institutions for accreditation, (5) the problem-oriented medical record in medical audit, and (6) outcome assessment for measuring quality assurance systems.

Complete proceedings of the conference are available from Regional Medical Programs Service, Parklawn Building, 5600 Fishers Lane, Rockville, Md. 20852.

A copy of the summary pamphlet is available from its author, Winston R. Miller, M.D., Program Director, Northlands Regional Medical Program, 375 Jackson St., St. Paul, Minn. 55101.

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E. USE OF ELECTRONIC MEDIA--No. 40 Through No. 45

40 THE "MIST" PROGRAM

Several states now have programs similar to, adaptions of or elaborations of the pioneering Medical Information Service via Telephone (MIST) program developed by the University of Alabama School of Medicine and the Alabama Regional Medical Program to meet the information and education needs of physicians. Among the objectives of the program are (1) to improve patient care; (2) to aid the practitioner at the time he needs help with a particular patient problem; (3) to reinforce this assistance with pertinent library material; (4) to provide communication between practicing physicians and the faculty of the University of Alabama Medical Center, such communications to (a) alert the faculty to the changing needs of the community physician, (b) continue the medical education of the academician by giving him a better view of medical practice and health-care delivery, and (c) serve as a source of continuing education for the practicing physician; and (5) to provide direction to the Division of Continuing Medical Education by identifying educational needs. By means of the state-wide WATS lines and centrex tie-lines, immediate person-to-person consultation is available 24 hours each day. Telephone operators with a directory of participating faculty members route calls. Each call is taped and analyzed. When appropriate, the Medical Library sends pertinent literature to the caller within three days. For further information, write to Margaret S. Klapper, M. D., Division of Continuing Medical Education, University of Alabama School of Medicine, 1919 Seventh Avenue, South, Birmingham, Alabama 35233.

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41. AHME/MC GRAW-HILL AGREEMENT

The Association for Hospital Medical Education and McGraw-Hill Multi-Media have agreed to cooperate in a joint venture in publishing audiovisual educational materials. The agreement was announced in Vol. 1, No. 1, July 1972, of the AHME Newsletter.

The report said that the AHME Editorial Panel will present to McGraw-Hill a list of 15 topics of considerable interest to hospital medical education directors for continuing medical education programs once annually. Several recognized authorities in each of the subjects will also be named. AHME will approve the materials in three stages and have control over outline, script/mechanical and interlock.

McGraw-Hill will select a minimum of six of the submitted topics for production each year. It will engage the services of approved resource people for each topic. After approval by the Editorial Panel, marketing will be carried out by McGraw-Hill through McGraw-Hill and AHME publications.

For more information, write AHME, 1911 Jefferson Davis Highway, Suite 1003, Arlington, Va. 22202.

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42. MEDICAL MEDIA NETWORK

The California medical community and the Department of Continuing Education in Medicine and Health Sciences, University Extension, UCLA, have developed the Medical Media Network (MMN). Non-profit, university administered and federally sponsored, the project produces educational programs on Super 8 and 16 mm film and one-inch videotape. Hospitals and medical centers take part in the production as well as the planning of the programs. Every program is accompanied by study-guides, self-tests, program outlines, bibliographies for further study, diagrams and topics for discussion. Participating institutions throughout the U.S. and foreign countries may purchase or rent the programs, or may subscribe to a year-round program of continuing education.

For further information, write Kathryn Alexander, Communications Coordinator, Medical Media Network, 10962 Le Conte Ave., Los Angeles, California 90024.

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43. THE NATIONAL LIBRARY OF MEDICINE

So many services for research, health care and education at all levels, particularly continuing education, are available through the National Library of Medicine, and the capabilities for further services, and ideas for exploiting them are developing so fast that, rather than listing them, this report simply calls attention to the fact that the monthly National Library of Medicine News is available and to some of the services described in recent issues.

A person can receive the newsletter by asking the NLM--8600 Rockville Pike, Bethesda, Md. 20014--to put him on the mailing list. The newsletter frequently calls attention to and summarizes other materials that are available.

For example, the July 1972 issue reported that the Lister Hill National Center for Biomedical Communications Report to the Congress is available without charge from NLM's Office of Public Information. The purpose of the Lister Hill National Center for Biomedical Communications is to adapt existing techniques and develop new computer and communication technologies for incorporation into operational biomedical communications networks in support of health-care delivery, education and research. The Center was established in 1968. The Report summarizes the progress of the Center in its first three years of operations. Among the projects summarized are satellite networks, cable television networks, the New England Microwave Network, and wireline networks.

Satellite Networks:

The Alaska experiment is the use of a communication satellite to connect isolated communities with physicians, thus providing needed consultation and direction. Medical traffic has been carried two hours per day, seven days per week since August 1971. Services provided are voice consultation between community health aides and physicians at Native Health Service Hospitals, and between physicians and consultants at Medical Centers; continuing education of health aides, nurses, and physicians; education of villagers in personal health matters; and communications between hospitalized patients and their families in native villages. The purpose of the Alaska Experiment is to determine which useful services can be provided by voice communications. A similar network is planned for Micronesia, the Trust Territory of the Pacific Islands, and the America Samoa; ground stations on at least three islands will be linked to the major medical, educational and library resources of the University of Hawaii by way of the ATS-1 satellite. ATS-1 is a low-powered satellite capable of transmitting only narrowband information--that is, including voice but not video.

In 1973 NASA will launch the ATS-F--the sixth in a series of experimental satellites, which has a full video capability, with a receiver/transmitter specifically for experimentation by the health and educational communities. The new experiments will explore the benefits of television as well as narrowband transmissions in support of health-care delivery and education. Needs will vary from region to region. The experiments are planned in the Northwest (including Alaska) and the Rocky Mountain states.

Cable Television Networks:

The Lister Hill Center supported efforts to establish pilot projects in which CTV is incorporated into health-care delivery systems and educational programs. The purpose of the experiment is to reach people in urban ghetto areas through their use of television. Programs are directed at improved patterns of self-care of the chronically ill and disabled, at education dealing with personal and community health, and at participation in entry into the health-care system. Experiments are in Denver and New York City.

Neighborhood health centers in Denver have proven valuable in the delivery of health care to the lower socio-economic strata of the city. Two major health clinics provide medical and administrative support to six neighborhood health centers. The cable system provides particularly valuable support to these small clinics or centers, which may depend for primary care principally on allied health professionals.

The Mt. Sinai-East Harlem project of New York City is an attempt to develop a unique patient and public information and education system. Mt. Sinai Medical Center has accepted responsibility for the health care of East Harlem. Historically the Center has developed its programs and policies around the three elements of health-care delivery, medical education and research; it has now included a fourth element--representation from the consumer population to broaden support for the community-oriented health-care systems. The cable television network is expected to be useful in all four of the elements.

New England Microwave Network:

Full two-way interactive television is perhaps the only technology for bringing the medical school classroom to the small community hospital and simultaneously bringing the community health professional to the university classroom. Doctors in the community hospital can now participate in grand rounds with their university colleagues. Nurses in coronary care units can share instruction and experiences in patient care. University faculty members can teach nursing students at the University Hospital and a small local vocational school

simultaneously. All these activities are under way with an experimental microwave television link connecting Dartmouth's Medical School and University Hospital in Hanover, N. H., with Claremont General Hospital in Claremont, N. H., 30 miles away. In 1972 construction was begun on a mountaintop microwave network that would extend the network both to the medical school of the University of Vermont, in Burlington, and the Central Vermont Hospital in Berlin. Plans were made to extend the television services to other institutions in 1973--using a van-mounted microwave unit to reach several small hospitals and clinics.

Wireline Networks--MEDLINE:

In October 1971 the National Library of Medicine began MEDLINE (MEDLARS On-Line) to provide an on-line bibliographic searching capability for libraries at medical schools, hospitals, and research institutions throughout the country. MEDLINE allows almost instantaneous searching of the medical literature. MEDLINE was made possible by the success of AIM-TWX (Abridged Index Medicus)by way of the Teletypewriter Exchange Network), begun early in 1970.

For AIM-TWX, citations to articles published during the last five years in over 100 journals are stored in the large, time-sharing computer of the System Development Corporation, Santa Monica, Calif. The larger MEDLINE data base consists of about 400,000 citations to articles from more than 1,000 journals indexed since January 1, 1969, operating on the NLM IBM 370/155 computer. In March 1973 MEDLINE service began to be provided on a regular basis from the Computer Center of the State University of New York (SUNY), thus offering additional capacity to meet the need for MEDLINE service and to provide a backup when NLM's computer is down.

NLM supports and manages a nationwide data communication network to facilitate access to the service by authorized users. Access is achieved, via telephone lines, teletype, TWX and other terminals. The communications network enables users in more than 35 major cities (nodes) to reach the computer at the cost of a local telephone call; users elsewhere pay only the charges to the nearest node. (See a later item for user charges.)

Eleven Regional Medical Libraries provide the managerial and document-delivery skeleton to the MEDLINE network. Other medical libraries are provided access upon giving evidence of a previous service record to scientists and practitioners within their communities both within and outside their own institutions.

For further information about MEDLINE, write the Associate Director, Library Operations, National Library of Medicine,

8600 Rockville Pike, Bethesda, Md. 20014, or to the Director of your Regional Medical Library listed below:

1. New England Region (CT, ME, MA, NH, RI, VT)
   Francis A. Countway Library of Medicine
   10 Shattuck St., Boston, MA 02115

2. New York and Northern New Jersey Region
   (NY and the 11 northern counties of NJ)
   New York Academy of Medicine Library
   2 East 103 St., New York, NY 10029

3. Mid Eastern Region (PA, DE, and the 10 southern counties of NJ)
   Library of the College of Physicians
   19 South 22 St., Philadelphia, PA 19103

4. Mid-Atlantic Region (VA, WV, MD, DC, NC)
   National Library of Medicine
   8600 Rockville Pike, Bethesda, MD 20014

5. East-Central Region (KY, MI, OH)
   Wayne State University Medical Library
   4325 Brush St., Detroit, MI 48201

6. Southeastern Region (AL, FL, GA, MS, SC, TN, PR)
   A. W. Calhoun Medical Library
   Emory University, Atlanta, GA 30322

7. Midwest Region (IL, IN, IA, MN, ND, WI)
   John Crerar Library
   35 West 33 St., Chicago, IL 60616

8. Midcontinental Region (CO, KS, MO, NB, SD, UT, WY)
   University of Nebraska Medical Center
   42nd St. & Dewey Ave., Omaha, NB 68105

9. South Central Region (AR, LA, NM, OK, TX)
   University of Texas Southwestern Medical School at Dallas
   5323 Harry Hines Blvd., Dallas, TX 75235

10. Pacific Northwest Region (AL, ID, MT, OR, WA)
    University of Washington, Health Sciences Library
    Seattle, Washington 98105

11. Pacific Southwest Region (AZ, CA, HI, NV)
    Center for Health Sciences, U. of California
    Los Angeles, CA 90024

MEDLINE service is just the beginning of many services to be provided by the Data Communication Service. Since mid-1972 a variety of diagnostic systems and computer-aided instruction

has been available. Thus medical students, physicians and allied health professions have access to an increasingly sophisticated repertoire of information services and other aids through the Data Communication Service. Among these are computer-aided instruction systems.

Wireline Networks--Computer Simulation Projects:

Among the many uses of computers are as aids in teaching, review, giving and scoring examinations, and simulating patients. Until the advent of the Lister Hill Center's Biomedical Data Network (part of the larger Data Communications Service) such computer programs were used mostly on the campuses where they were developed. In November 1970 the NLM began the organization of a biomedical communications network for interinstitutional cooperation and sharing of computer resources.

Three centers are notable in the application of computers to undergraduate and continuing medical education: Ohio State University Medical Center; the University of Illinois Medical Center in Chicago; and the Laboratory of Computer Sciences of Massachusetts General Hospital and Harvard Medical School in Boston. Each has its own computer and its own sets of teaching procedures, and each is willing to share its resources.

Ohio State University Medical School has specialized in the application of computer-aided instruction to the first two years of undergraduate medical education. The University of Illinois Medical Center is best known for the CASE programs--simulated clinical encounters in which the computer acts the role of the patient and the student diagnoses and records therapy prescribed on the basis of the computer store of symptoms. CASE is particularly applicable to the second two years of undergraduate education, but has applications also to continuing medical education. (Immediately following this section on the National Library of Medicine is a step-by-step description of the use of the PLATO System of computer-based education for health professionals at the University of Illinois.) Massachusetts General Hospital offers a wide variety of computer simulations of varying disease syndromes, of biochemical models and of various encounters; the MGH programs are of interest for a wide variety of applications from undergraduate education to the actual use by practicing physicians.

By early 1972 plans were well under way to connect the computers at each of these centers to the network which also carries MEDLINE and to make the services of these computer centers available for improved medical education across the nation.

Further expansion is planned. The present system of examining physicians for their qualifying "Boards" by assembling them

in the same place is costly. The National Board of Medical Examiners and a number of specialty boards, including the American Board of Internal Medicine, have been exploring the possibility of giving these examinations by computer to candidates at remote sites. Consideration is being given to the use of the Lister Hill Center's Biomedical Data Network as a means for developing and transmitting examination materials and to provide instructional materials for dentists, nurses and allied health professionals.

(A book that describes and discusses the uses of various systems, including PLATO, The Dial System, PILOT, PLANIT, and the Harvard University Computer-based Interactive Instructional System, is edited by L. M. Stolurow and others, Computer Assisted Instruction in the Health Professions, Newburyport, Mass.: Entelek, Inc., 1970, 258 p.)

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The material above on satellite networks, cable television networks, the New England Microwave Network and wireline networks was extracted from a report announced as available in a single issue of the National Library of Medicine News, Vol. XXVII, No. 7, July 1972. The dynamic nature of the developments illustrates the difficulty of trying to report specific events and the decision, therefore, to call attention to continuing sources of information through the newsletter.

Other items of continuing interest from the National Library of Medicine News follow:

Literature Searches:

For information on literature searches, write Literature Search Program, Reference Section, National Library of Medicine, 8600 Rockville Pike, Bethesda, Md. 20014. For a complete list of the Literature Searches presently available, write the above address. (This list current also appears monthly within the introductory pages of Index Medicus and the Monthly Bibliography of Medical Reviews.) Single copies of the bibliographies are available without charge from the same address. They should be requested by number and title. Do not use interlibrary loan forms. The name and address of the requester, typed on a gummed label, must accompany each request. Three recent Literature searches of interest to continuing educators of health manpower are:

No. 72-10 "Audio-visual aids in the teaching of medicine"--January 1969-April 1972 (74 citations);

No. 72-11 "Audio-visual aids in the teaching of nursing"--January 1969-April 1972 (46 citations);

No. 72-13 "Audio-visual aids in the teaching of allied health occupations"--January 1969-April 1972 (39 citations).

"Medlearn:"

The October 1972 News reported that the NLM awarded a one-year $17,000 contract to the George Washington University Medical Center, Washington, D.C., to develop a computer-assisted teaching program introducing health personnel to MEDLINE, the Library's on-line interactive bibliographic searching system. Entitled "MEDLEARN," it will serve as a computer-terminal-oriented, interactive tool suitable for both new and experienced users.

National Network for the Education of Health-Science Professionals:

The December 1972 News reported that the NLM had signed a contract with the Association of American Medical Colleges (AAMC) for the establishment of a collaborative program to develop a national network for the education of health-science-professionals. The AAMC will be responsible for bringing together faculty representatives from medical and dental educational institutions and representatives of biomedical disciplinary societies to identify, develop, produce and utilize: (1) educational materials of wide acceptability in the biomedical health professionals area; (2) educational materials of broad usefulness for educating the public; (3) systems to provide optimum evaluation of student acceptance and achievement, and assessment of the cost-effectiveness of new educational methodologies; and (4) institutional resources for facilitating the development and use of new educational methodologies. The program is for five years. It will involve audiovisual module development, computer development for education and assessment, and collaboration with NLM in the development of a communications network between academic medical centers and practicing physicians.

User Charges: The News for January-February 1973 announced that the NLM will introduce a modest user charge for its on-line services by April 1. The charge has been established at $6.00 per each hour of connect time plus 10¢ per page of citations printed off-line. Collected fees will be used, in part, to pay line charges for users remote from network nodes so that the services will cost the same no matter where a using institution is located.

PLATO, University of Illinois:

In the section on the National Library of Medicine's efforts to link computer resources, parenthetical reference was made to another computer to be described later. That computer system is PLATO, at the University of Illinois, Urbana-Champaign. The account below of that system was written in 1973 by Alan Knox, Professor of Adult Education, University of Illinois.

The PLATO system of computer based education at the University of Illinois is a recent development that is just beginning to be used for continuing education of health professionals. The developmental stage of the system is shifting to a demonstration stage in which it is being used for instruction in various fields including health sciences, such as nursing, veterinary medicine, and medicine. The system can be used for anonymous self-assessment, or for the collection, storage, and analysis of health-history data collected directly from the patient and efficiently presented to the health professional. The following example illustrates its use for direct instruction.

The main features of the PLATO system as it can be used for mastery learning in continuing education for health professionals are listed below.

1. A health professional decides that there are some topics he would like to review and learn more about, and he goes to a PLATO IV console located in a university or a hospital. The console is a square cabinet that sits on a table, has a plasma display panel in the front and a typewriter keyboard below it. The console is connected by telephone lines to a large computer which may be hundreds of miles away. The professional selects the lesson on which he wants to begin; the lesson may run for ten minutes or as long as several hours.

2. A great deal of work was required to make an effective one-hour lesson available. In addition to the development of a very powerful and flexible hardware system, many supporting computer programs were prepared so that authors can prepare the lessons themselves by use of the TUTOR computer language and learners can use their natural language at the keyboard for questions and responses. Even with misspelling, the supporting computer programs will interpret and use the input.

3. An author prepared the lesson. In his selection of the topic and his way of writing it, he took into account such considerations as the importance of the topic, the use of simulation or other procedures that utilize the potential of computer-based education, the extensive and continuous feedback to the learner of information about how well he is performing, a high degree of learner control and individualization regarding pacing and emphasis, the selection of objectives and content in which maximum mastery and minimum failure are important, and the selection of a topic that is difficult to teach otherwise.

4. In the preparation of the PLATO lesson, the author made decisions about content and about the way in which the computer program would operate.

5. The professional selects the lesson from those currently available and uses the keyboard to store in the memory of the computer some information including the name of the lesson and his own name.

6. Instantly the computer presents on the plasma display panel of the PLATO IV console some brief information about the lesson and instructions for the next step by the learner.

7. Assuming that the lesson deals with a clinical health problem, such as diagnosis of unusual heart sounds, the lesson would present on the display panel a detailed diagram of the chest area.

8. The professional is instructed to place his finger on the display panel at the location where he would place his stethoscope on a live patient. The touch-panel frame surrounding the display activates a random access audio device which transmits the heart sound that corresponds to what he would hear if he placed his stethoscope at the location touched.

9. The professional repeats the process until he decides on the optimal location from which to listen and the probable cause of the unusual heart sound.

10. The professional then indicates his diagnosis. If his conclusion is the same as that of a panel of experts, his decision is confirmed with a brief explanation and he proceeds to the next part of the lesson. If his conclusion is not correct, he receives instant feedback and suggestions about how to proceed. This process is continued until the process and underlying concepts are mastered. He then proceeds to the next part of the lesson, which is selected in part on the basis of his previous performance in the lesson.

11. The professional is presented with related knowledge in small amounts that are specifically connected with the simulated clinical procedure.

12. The console has the capacity to rear-project microfiche color slides onto the display panel instead of or along with the regular text and diagrams.

13. The computer can accumulate data, such as problem-oriented health records from a series of simulated patients with similar health problems, to allow the professional to discover regularities and trends.

14. The computer can also keep a record of learner responses and decisions. An analysis of this response data can be used to identify characteristic learning strategies. Professionals with ineffective learning strategies might then receive assistance in adopting a learning strategy which for many people is more effective and thereby learn how to learn better.

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44. NATIONAL "MEDICALL"

The first nationwide physicians' information service began July 15, 1972. The idea for the service, "MediCall," was conceived by Dr. John G. Bellows, a Chicago ophthalmologist and secretary of the American Society of Contemporary Medicine and Surgery (ASCMS), which sponsors the service. It is patterned after the MIST (Medical Information Service by telephone) program of Dr. Margaret Klapper, which serves Alabama physicians.

Service is provided 24 hours a day every day to all doctors in the continental United States who want information from an experienced specialist in a particular field. MediCall has obtained the services of 80 specialists. A doctor wanting information may place a call to the MediCall headquarters in Chicago, where specially trained telephone operators put him in touch with one of the specialists within a matter of minutes. The service may particularly benefit doctors in remote areas.

The American Society of Contemporary Medicine and Surgery, sponsor and subsidizer, hopes that the program will be successful enough to become self-sustaining. The physician seeking information pays for the telephone call and there may be a fee of $5 to $10 for the information, a portion of which goes to the specialist (although some contribute their services) and a portion to ASCMS.

Participating physicians in the MediCall program can receive credit toward the AMA Physician's Recognition Award. The specialist may get at least one hour's credit in Category 3 ("Medical Teaching") and the enquiring physician may get at least one hour's credit in Category 5 ("Non-Supervised Individual Continuing Medical Education Activities").

Only physicians may utilize the MediCall service. Physicians who want to discuss a particular medical emergency or problem with a specialist may call 312-782-7888.

For more information, write John G. Bellows, M.D., Ph.D., 30 N. Michigan Ave., Room 1600, Chicago, Ill. 60602.

45. WHO MEDICAL TEACHING THROUGH EDUCATIONAL TECHNOLOGY

The World Health Organization (WHO) has embarked on a long-term program to apply the resources of modern educational technology to the teaching/learning problems of health manpower in developing countries. Specific aspects of the program include:

1. Evaluation of existing and new teaching aids, assessed against criteria such as accuracy, currency, audience-level and context. Such evaluation will be a collaborative effort by institutes in the various countries.

2. Provision of a service to channel information through regional offices of WHO to institutes and users.

3. Stimulation of production and wide distribution of required learning material--with definition of actual requirements.

4. Establishment of central and mobile media centers. Currently a media center is being set up at WHO headquarters in Geneva. There are three mobile units in operation--one in the Eastern Mediterranean, one in the Western Pacific, and one based in Geneva.

5. Supplementary projects, including the facilitation of the international distribution of audiovisual material for teaching the health sciences, the provision of advice and assistance in setting up departments of medical illustration, the encouragement and support of research into the more economical and effective means of communication, the convening of meetings, and innovations in technology.

The training of teachers of health sciences in educational technology receives high priority.

For more information, write Dr. M.A.C. Dowling, Chief Medical Officer, Technology in Education and Training, Divisions of Health Manpower Development, World Health Organizations, Avenue Appia, 1211 Geneva, Switzerland 27.

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F. DETERMINING NEEDS--No. 46 Through No. 48

96. THE "BICYCLE" APPROACH

The central questions in continuing education for health manpower are, What are the most important needs to improve health care? and How can these needs be met by continuing education? An answer to these questions for physicians has been worked out that is adaptable to many other kinds of health manpower. It was developed by Clement R. Brown, Jr., M.D., at Chestnut Hill Hospital, Philadelphia, refining ideas and plans developed at the University of Illinois College of Medicine and tried at Rockford (Ill.) Memorial Hospital by George E. Miller, M.D., and John W. Williamson, M.D. (Two reports on this approach are "The Bicycle Concept--Relating Continuing Education Directly to Patient Care," by Clement R. Brown, Jr., and Henry S. M. Uhl, New England Journal of Medicine, May 20, 1971, and "From Philadelphia: Criteria-Audit in the Hospital Can Improve Patient Care," Patient Care, May 30, 1971.) The activity from Chestnut Hill Hospital led to funding by the Regional Medical Program, enabling nine other hospitals in the Greater Delaware Valley Region to develop similar programs. This extension, "Mandate Project," was directed by Dr. Brown with the help of Daniel S. Fleisher, M.D. Dr. Fleisher is now with the Pacific Medical Center, San Francisco, and is helping the California Medical Association spread the method in hospitals in that state.

After the preliminary steps of establishing data bases and setting priorities, the Bicycle Process is eight steps: (1) setting optimal (attainable) criteria for performance: (2) setting minimal criteria (beneath which performance will be judged deficient): (3) getting consensus on the criteria by the participating physicians, particularly those whose performance will be evaluated: (4) gathering data from the hospital and patient records on performance: (5) comparing performance data with minimal criteria: (6) thus identifying deficiencies, and hence educational needs: (6) planning learning experiences to meet the needs: (7) implementing the learning experiences: and (8) evaluating the learning experience by performance (i.e., repeating steps 4 and 5).

It is called the "Bicycle" Process because the outer cycle of practice reveals deficiencies in performance which can be corrected by the inner cycle of educational activities. Any process that discovers performance-educational needs by research into practice and bases educational programs upon the revealed and quantified need and then evaluates the effectiveness of the educational program by research into performance is basically the "Bicycle" Process.

47. PHYSICIAN PROFILE PROGRAM FOR CONTINUING MEDICAL EDUCATION

There are three steps in the Individual Physician Profile (IPP):

1. Data is gathered concerning the patient problems the physician most often treats in his private practice--practice profile. Such information also uncovers significant management problems which a practitioner must handle.

2. Based on the practice profile, an examination is designed to assess the practitioner's knowledge pertinent to his patients' problems. The examination questions are in categories corresponding to the International Classification of Disease, and are stored in a computer for rapid retrieval.

3. With a practice profile and results of an examination, a consultant (faculty member) meets with the practitioner to design a continuing education program tailored to the practitioner's needs.

To aid the consultant in designing a program for the practitioner, an educational resource index was developed. It is used to identify, by computer, those continuing education courses or materials available to the physician, which take place at a time convenient to the physician, and which cover the subjects in which the physician needs updating. The resource index is updated each month, thus assuring that the consultant has information for the physician that is accurate, comprehensive, current and quickly obtained.

The IPP was developed and implemented at the University of Wisconsin Medical School. For more information, write Sigurd E. Sivertson, M.D., Department of Postgraduate Medical Education, University of Wisconsin, 307 N. Charter St., Madison, Wis. 53706.

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48. SYSTEMS APPROACH IN JOB ANALYSIS BY THE NAVY

Ouida C. Upchurch, Captain, NC, USN, Special Assistant for Education and Training R & B Bureau of Medicine and Surgery, Department of the Navy, reported in September 1972 that a research report, Job Analysis Techniques for Restructuring Health Manpower Education and Training in the Navy Medical Department. Document No. AD 745-261, is available from the Department of Defense Documentation Center(Cameron Station), 5010 Duke St., Alexandria, Va. 22314. The job analysis used a systems approach, in which 50 hospital corps and dental technician jobs were analyzed and restructured into 16 career ladders--from beginning level to physician's assistant or technologist level.

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G. MISCELLANEOUS--No. 49 Through No. 52

49. THE CONNECTICUT INSTITUTE FOR HEALTH MANPOWER RESOURCES, INC.

CIHMR was incorporated in late 1970 as a private, non-profit, tax-exempt corporation and presently (late 1972) is supported by public and private funding. Created to address the state's growing health manpower crisis, the Institute seeks to fill as rapidly as possible the gaps in information, utilization and distribution which prevent the most effective, efficient and economic delivery of health-care services throughout Connecticut.

Organizationally, CIHMR is a community-based consortium of representatives of health and education organizations, government, the health professions, business, labor and consumers of health services. Its activities focus on (1) information regarding health manpower training, education and utilization throughout the state, and (2) coordination of these resources for improved communication and possibly new institutional arrangements. The Institute functions as a convener, catalyst, advisor or information provider, actively seeking to bring an articulated systems approach to such problems as recruitment and education of health workers; centralized information and analysis of manpower needs, careers, education and utilization; the encouragement of interinstitutional and interprofessional collaboration; and the fostering of innovations and experiments in the preparation and utilization of health workers while encouraging public acceptance and understanding.

CIHM has undertaken projects in the following action areas:

I. Information

A. Surveys and publications: Education and training programs in health careers; financial aid available to Connecticut students; abstracts of health manpower resource information.

B. Library resource center.

C. Information and referral services;

D. Health occupation profiles

II. Coordination

A. Health Job Bank, in cooperation with Connecticut State Labor Department and other State agencies and private health organizations.

B. Communication network with Connecticut Hospital Association and Commission for Higher Education.

Other activities with which the CIHMR is involved include: participation in master planning for higher education, examination of nursing articulation possibilities, resource on manpower planning committees, service on several boards and committees of health-related community organizations.

For further information, write Mrs. Selma Markowitz, Executive Director, Connecticut Institute for Health Manpower Resources, Inc., 770 Asylum Ave., Hartford, Connecticut 06105.

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50. CONTINUING EDUCATION UNIT--"THE CEU"

A uniform unit to measure noncredit continuing education activities is spreading. It grew out of an increasing demand for the standardization of measuring participation in continuing education. Early in 1968 the U. S. Civil Service Commission, U. S. Office of Education, the American Association of Collegiate Registrars and Admissions Officers, and the National University Extension Association sponsored a national planning conference to study the feasibility of defining a uniform unit of measuring noncredit continuing education activities. A National Task Force was created, which in October 1970 published an interim statement with the definition: "One c.e. unit is ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction."

Application of the c. e. unit, the Task Force said, would systematize the recording and reporting system for participation in noncredit continuing education and "encourage long-range educational goals and lifelong learning as a process of continuing education."

Later, both the Southern Association of Colleges and Schools, and the University System of Georgia adopted plans specifying that the CEU should be used as a standard unit. Now the University of Georgia Center for Continuing Education in Athens has compiled a booklet of selected readings describing and discussing the concept. The book contains six papers by Keith E. Glancy of the Johns Hopkins University, Paul J. Grogan of the University of Wisconsin, and Grove J. Andrews of the Southern Association of Colleges and Schools. Edited by Louis E. Phillips, the book is titled "The Continuing Education Unit: A Compilation of Selected Readings. It is available for $2.00 from Louis E. Phillips, Director, University Evening Classes, Georgia Center for Continuing Education, University of Georgia, Athens, Ga., 30601.

The Division of Continuing Education at the University of Florida began awarding CEU's on July 1, 1972. It evaluates all educational experiences according to the guidelines established in Standard Nine of the Southern Association of Colleges and Schools, which contains criteria for programs. Further information about the planning and implementation of the CEU can be obtained from Charlene Taft, Program Coordinator, Box 7587, J. Hillis Miller Health Center, University of Florida, Division of Continuing Education, Gainesville, Fla. 32601.

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51. MEDICAL MALPRACTICE

Persons who are interested in training and continuing education of health manpower should keep their eyes peeled for developments in malpractice insurance. President Nixon appointed a Federal Commission on Medical Malpractice, which began work in September 1971. Its findings, released in April 1973, were that injuries to patients, not avaricious patients and lawyers, are the main cause of increased malpractice claims. Among more than 100 findings and recommendations, the Commission called for (1) periodic relicensing of physicians, dentists and other health professionals to make sure their skills are kept up to date; (2) strengthening state medical practice acts to make it easier to suspend or revoke the licenses of incompetent practitioners; and (3) adoption of simpler methods of settling malpractice claims, such as arbitration, and experimentation with entire new "no-fault" approaches. HEW Secretary Caspar Weinberger wrote to governors encouraging them to carry out the report's recommendations that fall within the authority of the states.

The Commission contracted for some research that indicated the rate at which malpractice litigation is growing. From 1960 to 1970, premium costs rose 263 percent for hospitals, 115 percent for dentists, 541 percent for physicians other than surgeons, and 949 percent for surgeons.

When preferential premium rates become related to programs of continuing education, a strong push for systematic training and continuing education will be given.

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52. THE PAS-MAP SYSTEM

Increasingly performance records are being examined, both for the assurance of quality care and as the basis for the determination of educational need. A key step is the setting of standards--both optimal and minimal(beneath which performance is judged to be deficient). When the activity is conducted within hospital, the hospital's own records are used but there is still the question of comparison with national norms. The Professional Activities Study-Medical Audit Program (PAS-MAP) provided by the Commission on Professional and Hospital Activities, Ann Arbor, Michigan, is a national system supplying medical data.

The PAS-MAP System requires that charts of all patients who are discharged or who die be abstracted each month by participating hospitals. The abstraction process is determined by the PAS-MAP case abstract form. PAS-MAP then computerizes the hospital's data and returns it in various forms. The major mode of display is to arrange most of the 40 approximately 40 administrative and 40 medical bits of data in vertical columns for each patient. Patients are arranged horizontally according to their diagnosis. Most of the 1,300 hospitals employing PAS-MAP (and thus contributing their charts to the data base)make considerable use of the administrative and utilization data they get back, and an increasing number of them are using the data for their quality assurance and continuing education activities.

For more information, write the Commission on Professional and Hospital Activities, 1968 Green Road, Ann Arbor, Michigan 48105.

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